

Original Correspondence.

PRACTICAL PAPERS ON COLLIERY OPERATIONS—No. XII.
REMARKS UPON THE SUBSIDENCE OF THE SURFACE CONSEQUENT UPON
THE WORKING OF COLLIERIES; ALSO UPON SURVEYING OF MINES.

SIR,—From the great rapidity with which buildings of all kinds have sprung up during the last few years in most mining localities, the first-named subject is one of growing importance, and from the decision recently arrived at by the Court of Exchequer, it must necessarily be of the greatest utility to know something of the principles that govern the subsidence of the surface, especially so where manufactures are carried on by the aid of machinery, and that, too, of the most delicate description. For by the recent decision of the Court of Exchequer in the case of *Stroyan v. Knowles*, it has been established that the capitalist who has been bold and enterprising enough to employ his capital in the working of coal mines shall be held amenable for any injury caused to any building, machinery, &c., on the lands of an adjoining proprietor, providing such buildings have been erected thereon, or enlarged, within 20 years, and that the said buildings did not either contribute to or occasion such subsidence; whether the mines had been skilfully worked or not, or whether the coal had been wrought immediately adjoining the point where the subsidence had taken place. This decision for the present determines the knotty point, so often disputed, whether the owner of the surface or adjoining land is entitled to have the support of an adjoining coal seam or coal seams for such a distance as the working of such mines will not interfere with property erected upon such land; or if the property should be so injured, no matter how scientifically the coal may have been wrought, or at what distance from the property injured by such subsidence, the coal owner must pay for or make good such injury.

It will be seen from what is hereafter adduced that this decision must affect the interest of both the lessee and lessor to a considerable extent where the mines belong to one party and the surface to another, or where there are numerous small freeholds, from the great quantity of coal that it is necessary to leave unwrought to support a single building. Is it not possible for the coal owners of this country to take up the subject, and obtain a repeal of such enactments that enabled the judges of the Court of Exchequer to arrive at such unfair decisions in point of equity? If nothing is done, shall we not have other cases of a like nature ere long? Or must the cumbersome and expensive method by which the case referred to was brought to an issue act as the only safeguard to proprietors of collieries against such mischievous, expensive, and annoying proceedings?

As to how much coal it is advisable to leave, and in what position and manner it is best to leave it, in order to secure buildings, &c., from harm, or preventing the subsidence of the land upon which they are erected, must depend upon a variety of circumstances. The reader, whether acquainted with mining operations or not, will at once perceive that to some extent it must depend upon the nature of the strata overlying the seams of coal, the depth that the seams are from the surface and the thickness of the coal worked. I entertain very different opinions to many upon the propriety of leaving coal for the support of cottages and detached houses, or other buildings; and I even go so far as to assert, and am prepared to prove it, that thousands of pounds worth of coal has been left to support buildings over and above what would have purchased them, or have rebuilt them provided they had been razed to the ground. In several cases that I am acquainted with far more mischief has been done to the buildings that were intended to be protected by leaving coal in an injudicious manner, than if the coal had been worked out without paying any regard to the buildings. In order to protect a single building, if it requires that any coal should be left for such purpose, it would be requisite to leave 60 yards of coal upon the line of level, and to get only half the coal for 40 yards upon the rise of the mine. Supposing that we are only working two seams, each 4 feet in thickness, at such depths from the surface as to affect the buildings, we have 3200 tons of coal left unwrought, say at 1s. per ton mine rent (160L); the profit ought to be equal to the rent, or the colliery is not worth having. Say, profit upon working 3200 tons at 1s. per ton, 160L: the proportionate share of sinking shafts and erecting machinery will exceed 8d. per ton; but say 3200 tons at 8d. (106L), so that we have a sum of 426L, under the most favourable circumstances, for the support of a single building. In some mines double the quantity of coal named would be insufficient to protect a building, and in no case should I consider the quantity named to be left unwrought in the least superfluous. The breakage line, or line to where the subsidence of the surface extends, is undoubtedly upon the deep of the coal that has been wrought, and, consequently, the proper place to leave coal for the support of buildings, &c., is upon the rise of the buildings, and not directly under them, as was long considered necessary. The best rule that I can give are that all coal mines lying at an angle of inclination less than 15° draw over upon the deep of where the coal has been wrought at an angle of from 95° to 100° from the angle of inclination, or rise and dip, of the mine, measuring from the lowest point at which the coal has been wrought; and that mines lying at an angle of from 15° to 25° will form their breakage line upon the deep nearly at right angles from the angle of inclination of the mine; and mines at 25° to 32° at an angle of 80° or 82°; and mines at an angle of inclination as high as 40°, fall down to 70° or 75° for their breakage line from the angle of inclination. The breakage line, which is formed by the coal being worked out to the boundary upon the rise and dip of the mine, runs nearly parallel with the rise and dip, but is not subject to any rule that I can apply. At a depth of 200 yards from the surface I have known the breakage line to be 40 yards beyond the point to which the levels were driven, or the coal worked out, whilst at the same depth, and the mines of nearly the same thickness, and the angle of inclination almost the same, I have known the breakage line to be nearly vertical with the point to which the coal had been worked, and in one instance to form an angle in the contrary direction. The rules here laid down may differ to some extent, in consequence of the thickness of the seams, and the different strata overlying the coal. It could hardly be expected that the same rule would apply to a mine 2 feet in thickness as to the Staffordshire 10-yards coal, nor that the breakage line would be so well defined, where much coal is left unwrought, from the system of getting the coal being bad, as where all the coal is worked out without waste. Some slight difference may also arise from the cleavage, or joints, of the strata being different, but for any practical purpose the rules previously given will be found correct enough, and applicable to nine mines out of every ten.

Were I leaving coal for the purpose of protecting buildings, &c., I should to some extent be governed by the angle of the cleavage of the coal as to how it would be best to leave it; for instance, supposing the cleavage was within 20° of being parallel with the line of level, it would be advisable to leave the coal in pillars at right angles with the wagon-roads, the pillars to be 5 yards in width; or, in other words, to get 5 yards and leave 5 yards. If the bord or cleavage of the coal is within 20° or 30° of being at right angles with the wagon-road, then it would be preferable, in my opinion, to work out one-half the coal in the direction that the levels are driven, either whilst driving to the boundary or working back. The width I should prefer leaving the pillars upon this system of working would be 6 yards, and getting each alternate 6 yards. It very frequently happens that there is a sufficient quantity of dirt produced from the other parts of the workings to partially fill up the space that the coal has been wrought from; if so, it is very desirable that square packs should be built of it, so as to assist the pillars of coal left for supporting the roof of the mine. If the pillars are not left upon the before-mentioned principle, when the superincumbent strata press with full force by the adjacent coal being gotten, the pillars will in many places be split up, so as to be unable to resist the weight thrown upon them.

It may probably be known to most of those connected with coal mining that the whole of the area over which the coal has been wrought subsides, and that it is clearly shown upon the surface, even in working a seam 2 ft. 6 in. in thickness at 200 yards from the surface; but if the subsidence takes place over a wide area at once, it does not affect the buildings erected thereon to any serious extent: it is the breakage line, or point where the land that subsides separates itself from that which remains in its position, that requires guarding against. If two seams of coal are worked within such a distance of each other as to affect the same buildings, it would be better to leave the pillars in the under seam at right angles with the wagon-road, and the pillars in the upper seam parallel with the wagon-roads. It sometimes happens that a rank, or width, of coal, may be worked out where the stratum overlying the coal is very strong, without any perceptible subsidence of the surface taking place. When this is the case it causes the subsidence of the surface to extend over a wide area when the next rank is worked out, and to be more irregular in its course.

I will take the liberty of slightly digressing, for the purpose of offering a few remarks upon the difference which exists in coal for keeping back

water. Some seams of coal have the cleavage so well defined, and the joints so open, that I have seen water percolate through a rank of coal 80 yards in thickness, with a pressure of 10 lbs. to the inch, almost like running through a riddle; whilst in other cases a barrier of 30 yards has been trusted to, where the lives of from 300 to 400 men have depended upon the security of such a barrier. I know of an instance at the present time, where the barrier of coal trusted to keep the water from going down the incline of the mine cannot exceed 30 yards (probably not 20), and upon the stability of this hangs the lives of several hundred human beings. Ostensibly the barrier is left for the purpose of preventing the water from going down a downbrow, but in reality it is for the purpose of giving the proprietors of the adjoining colliery the water which in point of equity (if not legally so) they themselves are entitled to pump. Is it to be wondered at that proprietors of mines who so recklessly expose the lives of so many fellow-men, and place themselves in such hazardous positions, should be found to decry the necessity for governmental inspection of mines? The running such risks appears to me more like playing a game at hazard than managing collieries, setting aside the fearful consequences that may arise to the workmen, and viewing it only in a pecuniary light.

The latter part of the subject that I have chosen for the present paper—the Surveying of Mines—is one of the utmost importance in conducting mining operations, and were a single case required to fully set forth the desirability of having this part of the business performed in an efficient manner, or one that has produced a greater amount of suffering and misery by the negligence and culpability of a colliery manager, I should select the recent catastrophe at the Black Shale Pit, Clay Cross. If it be true, as asserted in the *Mining Journal* of the 17th inst., that the same manager was there when the old firm wrought the coal that has after a lapse of time produced such awful destruction to human life, and entailed such a serious loss upon the proprietors of the colliery in question, the Inspector of Mines who declared that the manager had conducted the operations as well as he himself could have done, and the trio of eminent mining engineers who have entirely acquitted him of blame, and laboured hard to attach the blame upon minor officials and deceased workmen, cannot remove from the breast of the individual who has caused such fearful loss of life the deep pang of remorse that he must feel in his thoughtful moments, nor prevent the circumstance from weighing upon his breast to the last moment of his consciousness. It is true it is a venial offence in the eyes of the law and of the public, and that no intent existed, but the fact still remains that 25 human beings have been sacrificed. Does not this decision confirm in a remarkable manner the remarks made by me in a pamphlet some time ago, of the way in which truth was distorted or suppressed for the purpose of shielding parties guilty of neglect of duty, or of owners exercising false economy.

In such a case as the one referred to it is of little moment how the survey is conducted, if tolerable accuracy be insured; in fact, it does not appear clear whether simply measuring the quantity of coal wrought, and plotting it with the scale, would not have been sufficient to have averted the catastrophe, without an actual survey. At all events, at the time the coal was wrought instruments were in use correct enough for conducting a survey with greater accuracy than the one in question appears to have been. Under ordinary circumstances the common dial is an instrument that may be relied upon in making an underground survey. There may be instruments better adapted to the work than the dial. The theodolite is certainly better adapted for taking angles; but a survey may be conducted with the ordinary dial, not only correctly but expeditiously. At least, I seldom meet with anyone who has to complain of that instrument not permitting him to do work enough to fatigue him. But I have frequently met with mineral surveyors who have been fatigued and jaded out in five or six hours, with only travelling the distance than can be surveyed with the ordinary dial. With regard to its correctness, I can only say that at a distance of several hundred yards of driving upon a point fixed by the dial, after taking eight or ten drafts or sights to the point where the work was set out, my work has proved itself correct to the merest trifle on different occasions, and that this is nothing more than can be correctly stated by scores of others whose business it has been to conduct mineral surveys. I grant that it is sometimes perplexing, and that great care is required in taking the first sight from the shaft, where a few yards of a tunnel forms the entrance to the shaft, and the levels run at right angles from the tunnel. Owing to the short distance that it is necessary to fix the dial from the shaft, the needle will sometimes be attracted very considerably by the pumps. This appears to me the only difficulty worth naming that presents itself in surveying with the circumferential dial, assuming that the surveyor understands his business. Where there are no pumps in the shaft, the bearing from the centre of the shaft to the centre of the levels may be taken before laying the plates at the pit's bottom. With regard to any attraction from the cages in the shaft militating against the use of the magnetic needle, or leading to incorrect surveying, it is simply absurd to speak of it, for who with common sense would fix a dial in close proximity to a cage weighing 6 or 8 cwt., when it could be raised to the middle of the shaft and kept in its position without any inconvenience or loss of time. If the dialling is being done for the purpose of setting a work out to drive to some particular point, then it would not only be necessary to pull the rails up from the wagon-road, and remove them so far from the dial each time it is fixed as not to disturb the needle, but to leave a station each time the dial is removed; and when the dial is again fixed to take a back sight, for the purpose of seeing whether any variation of the needle occurs, and checking the survey as it is proceeded with, or if there be two levels dialling, one to the far end, and the other back again, this is a far more tedious operation than the ordinary method of surveying; but if accuracy is required it cannot be sacrificed for a more expeditious system that does not guarantee it. I have conducted surveys in many different ironstone and coal mines, but have not met with anything sufficiently magnetic to attract the needle of a dial in either, excepting the iron that has been conveyed into the workings in the shape of tram rails, &c. Where great accuracy is required it is better to conduct the survey with the same instrument as is used for taking the surface bearings. It is not necessary, except on rare occasions, to dial any but the bottom level, not even where the coal is paid for by measurement. The other workings are generally plotted from measurements, so that supposing two levels were driven out, one on each side the shaft, at the rate of 2 yards per day, under ordinary circumstances a 12 month's dialling for one pit could be performed in a day.

Jos. GOODWIN.

SAFETY-LAMPS.

SIR,—Although advised by my viewer that there is no necessity for change from the common pit candles now used in my collieries, I am about, in consequence of the recommendation of the Government Inspector, to introduce safety-lamps, and I should be glad to learn, from some one experienced in their use, which is the best lamp for safety and economy. I have read all, I think, that has appeared in the *Mining Journal* during the last ten years upon the subject, but the advantages and disadvantages of the lamps appear to be so nearly balanced that I am at a loss which to select. In my opinion there seems to be no question that comparing the Davy and the Stephenson the latter is superior, inasmuch as it gives an equal amount of light, or more according to some opinions, than the Davy, and has the additional advantage that it will not burn in an explosive atmosphere at all. But as to the merits of the Stephenson, as compared with glass-sided lamps, or some of the more recent inventions—Hall's paraffine safety-lamp, for example—the matter does not seem equally clear.

Great difference of opinion appears to exist as to whether the glass-sided lamp is perfectly safe, or, at least, as safe as the Stephenson, or whether it is not. For my own part, I am inclined to conclude that it is equally safe, and for this reason—it seems to me that the only way in which either could be damaged is by a blow from a pick, and that such an accident would effectually damage either. I am aware that much has been written as to the effect of drops of water or splinters of coal on glass-sided lamps, but have not seen any very satisfactory conclusions against them arrived at. Considering that the glass round (say) the Moxard, for example, is $\frac{1}{4}$ inch or $\frac{1}{2}$ inch thick, and is never very warm—never warm enough, in fact, to give any pain or inconvenience from putting the finger upon it, I cannot think that a drop or two of cold water, even at freezing temperature, would cause a fracture. And as to the breaking with a splinter of coal, I do not think one is more liable to damage than another, for the vertical bars around the glass lamps would, I should think, prevent any splinter of coal large enough to fracture it passing through, or, to say the least, a splinter of similar size would be quite as liable to render a Stephenson useless as a glass-sided lamp.

As to Hall's lamp, I have never seen it, but having heard much about it, and the reputation of the inventor as a practical man, I presume that it is really a safety-lamp. Assuming this to be the case, I regard Mr. Hall's as the best lamp for colliery purposes that could be introduced, as, with a cheap and economic apparatus, something similar to that used in

the production of the hydrogen for the Fitzmaurice light, all the oil required in the colliery could be made at the pit's mouth from the waste coal. The cost of this apparatus would, I should think, not exceed 5L, and a couple of hours per week would be ample for making gas. These opinions are those which I have formed from a kind of theoretical acquaintance with safety-lamps, but as I am always ready to give the preference to practical knowledge, I have chosen a communication to you as the most likely means of attaining my object. COLLIERY OWNER.

STEAM ON COMMON ROADS.

SIR,—Observing in last week's *Journal* an article headed "Steam on Common Roads," permit me, with your accustomed fairness, to make a few remarks on the same. The details of Boydell's engine are, I presume, so well known that it is needless to particularise them here; suffice it to say, that round the wheels are placed shoes or rails, which fit the road as the wheel rotates; this forms the chief part of the design, and which, in my opinion, is the most faulty. In the paragraph before mentioned it is stated that Boydell's traction-engine is the only one at present in existence that can travel over a morass as well as over a macadamised road: this I deny *in toto*, and will, with your permission, call the attention of your numerous readers to an engine which will perform duties which Boydell's never has or ever will accomplish. The theory of it may be very good, but its practical working capabilities are what is wanted, and must be developed, if it is to compete with others constructed on sounder mechanical principles.

The engine to which I allude is one patented by Mr. Thomas Aveling, the well-known engineer of Rochester, and consists of an ordinary portable engine, fitted with self-propelling gear of a novel description, applied from a pinion keyed on the crank-shaft. There is also link-motion gear for reversing, which, in conjunction with a powerful brake, subjects the engine to the most complete control. A tank for feeding the boiler with water serves the purpose of tender for fuel and foot-plate, and is attached to the fire-box end. The wheels have broad tyres, and T-iron paddles are readily adjusted for the purpose of facilitating its progress over ploughed fields or boggy lands. By throwing the crank-shaft pinion out of gear the engine is adapted for all the requirements of an ordinary portable engine. A neat cast-iron steering-frame is attached in front, the steering-wheel being actuated by a long handle, and can be easily managed by a labourer of ordinary intelligence. One of these engines recently made a most successful experimental journey through the most crowded thoroughfares of London, accompanied by several scientific gentlemen. As an instance of its tractive power, this engine took a load of 12 tons up an incline of 1 in 6 with perfect ease. I feel I have already occupied sufficient of your valuable space for the present, so with your permission, I will leave these facts to speak for themselves, and remove, if possible, any prejudices that may hitherto have existed.—*St. Paul's Churchyard.* C. B. KING, Mechanical Engineer.

OXIDE OF SILVER.

SIR,—As some discussion has taken place in the *Journal* respecting oxide of silver, perhaps the information I can give may throw some light upon the subject. In a little work on the reduction of silver ores, published here in 1858, Mr. Bowring describes simple and compound oxides of silver as existing in the ores of Real del Monte, where they are more abundant than one of your correspondents imagines, as between the years 1849 and 1858 the mine of Rosario, in Pachuca, produced nearly 100,000 tons of ore, containing a trifle over 1,000,000 marcos of silver, about half of which was from the compound oxide. During the same years, the extraction from the mine of Santa Ines, in Real del Monte, amounted to 40,000 tons, which yielded 231,715 marks of silver, nine-tenths of which were from the same oxide.

To separate the simple from the compound oxide, a weak solution of salt is first added to the sample to be analysed, and the chloride of silver that is instantaneously formed by the simple oxide is washed out either by ammonia, hyposulphite of soda, or a boiling solution of salt. The residuum is digested in a solution of cyanide of potassium, and filtered; on adding a slight excess of hydrochloric acid, chloride of silver is precipitated, tinged purple or rose-coloured by manganese. A double oxide of silver and antimony exists likewise in several of the mines in Mexico, and similar combinations with other metals may probably still be discovered. Precipitated sulphuret, as also native silver, when reduced to a sufficiently fine powder, are also soluble in cyanide of potassium; but, on the addition of an acid, sulphuret of silver is precipitated.

If in the Cornish gossans the silver really exists as an oxide, I do not understand how the whole of the metal does not come out in the decimastic assay, as it must be reduced by heat to a metallic state, and taken up by the lead. The only combination of silver that I can imagine that would not give its ley by fire might be a silicate, as that very probably would form a slag with the matrix. This combination could, however, be easily reduced by mixing the ore in fine powder with salt and sulphate of copper, and passing an electric current through it, in the manner described by Mr. Bowring. The reduction of the chloride of silver thus formed offers no difficulty, but it must be observed that the electric current decomposes as well as forms the chloride of silver; the quantity of electricity required for this process is extremely small. If the gossans contain, as stated, merely oxide of silver, they might be very economically reduced by Mr. Ziervogel's method, minus the reverberation, in a country where salt is so cheap as it is in England.—*Merico, June 21.* AZOGUERO.

PUDDLED STEEL.

SIR,—Having had considerable experience in the manufacture of puddled steel, will you allow me a space in your valuable *Journal* for a few remarks on the subject? Why puddled steel should be apparently so much neglected, and treated with so great indifference, in this country is rather a mystery; does it arise from our inability to produce a good article, so as to be able to compete with our foreign neighbours; or is it our wish to monopolise it, or to keep in darkness the advances and progress made in its manufacture? From the appearance of what I have seen of it produced by some of our principal makers, I should say, indeed, we are far behind other countries in the manufacture of this important article—in fact, it had little appearance of steel, but more like badly puddled or hardened iron, void of firmness, strength, and uniformity. But if, as I suspect, it is made with an excess of deleterious matter, or the addition of cold pig-iron to the metal while in a state of fusion in the puddling-furnace, in the manner described by Mr. W. Clay, of the Mersey Steel and Iron-works, Liverpool, in the *Mining Journal* of Jan. 23, 1858, and read at the Society of Arts by that gentleman, and patented by Mr. E. Riepe, I am not at all surprised that such an inferior article is the result. Success cannot attend such an operation; this I have fully proved, having frequently and carefully experimented upon it without obtaining any satisfactory result. To produce good puddled steel careful and skilled labour, with strict attention in regulating the temperature of the puddling-furnace during the whole process, is indispensable, as much more depends on such attention than on the agency of manganese, salt, or any other substances employed for the decarburization of cast-iron, to produce puddled steel. If we are dependent on other countries for this article it must arise from our incapacity to produce it in sufficient quantities, and of a class equal to our demands. Having an abundance of good means at our disposal, are we not fully competent to supply our own and even other countries with it, and by this means give an outlet to our much-depressed and over-stocked iron market, which is so important to our ironmasters and to our poorer working classes; and also to keep at home our ablest and most skilful workmen, who are daily leaving our shores and seeking labour in foreign countries, and raising up staunch opponents to the iron and other trades of Great Britain by their superior skill and knowledge?

Our American friends, who are making rapid strides, and bid fair to compete with us in the iron trade, are, like ourselves, behindhand in the puddled steel business, being dependent on Northern Europe for their supplies of this article, and, to some extent, on England for cast-steel, having made several attempts to produce puddled steel; but they also much neglect, and keep it a great secret. While travelling through the most important districts (for iron manufacturing) in that country, some twelve months ago, I was surprised at the great caution observed by them, particularly in one establishment, which was endeavouring to make it; the whole of the furnace and men employed were boarded in and kept apart from the rest, to prevent, as I was informed, the prying eyes of their fast neighbours from seeing and learning the great mystery of puddling steel. The article produced was of a very inferior quality, something similar to our own, although made from the best of materials.

In the production of puddled steel with wood I have had much experience, and have not failed to produce it equal to the best cast-steel for any purpose, and in many cases to supersede it, at a small advance on the cost of merchant iron, and without making any particular selections of

pig-iron; and I do not hesitate saying that in this country it can be produced quite as good, at an advance of from 15 to 20 per cent. on the cost of merchant iron.

I have this week used a piece of 3-in. square bar of puddled steel rolled from the puddle ball to this size, at the same heat, first hammered into a bloom, then rolled down into a 1½-in. billet, cut up, and rolled down into the small square; and without further forging filed into a tool which cut two grooves in a chill guide roll from the surface, without showing the least signs of defect. Such a test alone will quite satisfy your more intelligent readers of its capabilities without further comment. Subjoined is the opinion of a gentleman well known in the mining world and districts of Mexico, and to the late mining company of the Real del Monte Mines of that country, to whom I sent some miners' bars of puddled steel for trial:—

Pachuca Mines, Aug. 23, 1859.—Your letter of July 26, together with the steel bars came to hand, to which I was anxious to give a fair trial before replying, and have now the pleasure of doing so, though the observations as to its capabilities have not been made so minutely as I intended. The temper of the bars when received were too high, and on boring a hard stone they broke quickly; but having been sharpened and seasoned, as is usual with the cast-steel bars we receive from Sheffield expressly for this purpose, they have stood better, and, in fact, have served just as well in the hardest grounds—"distajos."—J. RICHARD RILEY.

The above-mentioned tool for turning, and other specimens, such as taps, dies, &c., made from the same bar of puddled steel, can be forwarded to any interested person, or be seen by applying to me here.

Wilden Iron-Works, Abergavenny, Aug. 28. E. B. MUNRO.

VOLCANIC ACTION.

SIR,—It really is amusing to read in last week's Journal the credulous and very cautious manner in which Mr. Evan Hopkins chooses to receive my account of, and ability to show him, a mountain of Nature-calced iron ore, the veritable product of volcanic action. Evidently he has no present belief in such a notable change, which in a F.G.S. is certainly somewhat remarkable; and equally strange has been his previous assertion, in the Journal of the 17th inst., that the igneous theory is not only totally unnecessary, &c., but is now all but exploded. Mr. Hopkins is too enamoured of what he styles the wet process of Nature to admit of the possibility of the equally, at least, potent process of heat. To quote Mr. Hopkins's own words, it is much to be desired that those who undertake to instruct the rising generation of miners, &c., should study the works of Nature (her whole, not merely in Cornwall) in *extenso*. I speak not of any superficial or mere surface, neither oxidised surface change, but to a whole mountain bed of ironstone (*magnetic in the mines*), and which fact I named previously, so as to lead Mr. Hopkins aright; and the commercial value of which may be judged of by the fact of some 28,000*l.* to 30,000*l.* having been expended on a branch line a few miles in length, to join the North-Eastern main line north, &c., and carry this ore to Ferry Hill, county Durham, where three furnaces have been built within the last two years for the special purpose of smelting this splendid seam of magnetic ore. If this be not a substantial reality, whose origin most certainly cannot have been derived from any portion of the aqueous system and cold water which Mr. Hopkins desires to pour out rather extensively in his endeavour to explain away any idea of heat being the cause of the product in question. However such a magnificent geological fact escaped Mr. Hopkins's investigation when he was in the neighbourhood exploring, is to be attributed to his confining his visit to the sea-washed cliffs of Whitby alone (where he saw a surface sea-washed oxidation, but very remote from volcanic action, even in appearance), and not attempting to go over and explore the inexhaustible mineral wealth of the adjacent valleys, recognised by Prof. Phillips, Marley, and others, to be the real lasting supplying district for the kingdom's supply, unequalled for quality and quantity; and as to cost, it can be put into the furnace here for about 2s. to 2s. 3d. per ton, as compared with 16s. and 12s. in Staffordshire and Wales relatively. However, all I can say to Mr. Hopkins is, come and see for yourself; and all I ask is that he honestly and honourably acknowledges and gives to the iron world his convictions, after a proper examination and inspection of the teeming wealth of this very favoured locality. If Mr. Hopkins favours Whitby with a visit, I shall also show him another result (equally extensive in its range and magnitude) and origin of volcanic action in the basaltic whinstone dyke, running across the country in this neighbourhood from May-leck towards Scarborough, and reaching into the country as far as Cockfield Fell, in the county of Durham. Throughout its length it is most extensively worked for metallurgical purposes, and so very valuable is it for this purpose, and lasting, that it bears the heavy rail carriage charges from here a very great distance into the Midland and southern districts of England for the county roads. I make little doubt of removing Mr. Hopkins's scepticism, and somewhat alter his views as to the power, usefulness, and certain results of the internal fires of past ages. T. A. BARNES, *Whitby, Aug. 29.* Mining and Consulting Engineer.

ON THE ORIGIN OF QUARTZ VEINS.

SIR,—In the Journal of Aug. 3 Mr. Evan Hopkins alludes to Sir Roderick Murchison, in reference to some disputed theory as to the production of gold in depth. I have not read of any theory which would in the least show that gold cannot be found in great depth; but I will describe what is seen, that those better acquainted with theories may judge and draw their conclusions. Some might even dispute the origin of quartz dykes, and class them with other mineral veins; but I take it for granted that their plutonic formation cannot be disputed, though various are the appearances and changing influences produced by the chemical action of water and electric currents, forming crystals, filling small cavities, &c., such appearances being sometimes the sole ground for the views taken by a superficial observer as the means that have produced the whole (just as if a shirt could be made in Manchester without the material coming from elsewhere). Not being a chemist, I do not enter into the chemical composition of bodies, but think it possible that a molten mass of quartz acting on the rocks on each side of the quartzose substances, and much readily crystalline on the cooling of the mass. On the return of water it would act its chemical part, producing in the strata and mineral around, electric currents, the character and power of which govern the electro-chemical deposit. But this I take as nothing to do with the gold produced in quartz veins, which are exuded from the molten mass within the crust of the earth; the fissures through which they have been sent forth are generally of a later date than other mineral veins, to which class they do not belong, but to the dyke formation, such as basaltic veins or fine-grained granite, a proof of which Dr. Hottoway, a mineralogist of great experience, mentioned to me while in Victoria, that while acting as manager of one of the renowned American gold mines he traced and found, after considerable labour had been expended, that a quartz vein penetrated the fine-grained granite, and was gradually blended or was lost to the miner by its taking the appearance of that mineral. And also, while upholding the igneous origin of quartz dykes, and admitting that small veins of quartz or crystals are often formed by the action of water, assisted by other agents, I can only think that Mr. Evan Hopkins is too generous to himself and the German chemists, as he would use water too freely in dashing it on everything igneous, as if he desired to quench every spark of the old school, and attribute almost all formations to aqueous origin.

But where the proof is given I look on it as an established fact. When Nature speaks for herself, then the trifling words of man fade away. At Stigitz, in the district of Ballarat, an overwhelming proof presents itself as to the origin of quartz veins. The formation being harder than is usual on the gold fields, we were enabled to study the subject better; where in a softer stratum disorder presented itself, in this hard rock the eruptive origin of the quartz was plainly discernible. The strata consisted of alternate layers of sandstone and slate, or schistose rocks inclining at an angle of about 25°. Counting the various layers of strata as the course of the fissure made in the convulsion of nature (caused by the contracting of the earth's crust on the igneous liquid mass, within which, exerting a force equal on all sides, bursts the weaker part, which it shows generally to be in the secondary rocks (gases and fumes of minerals would be the first discharged from the plutonic fires, in part depositing themselves as condensed on the walls of the opening so made; this takes place with great rapidity, the liquid molten mass of quartz following after, the heat of which causes nearly all mineral substances to fly lightly away, but in nearing the surface the powerful force exerted has nearly found its balance, and the column of quartz moves slowly, and some mineral substances, which have been condensed from the fumes of minerals arising from beneath and deposited on the walls of the fissure, now take at a less temperature their metallic form, intermixing the gold in the furnace. So do the minerals left by fumes again take their metallic form in the quartz dyke, again diverting their glittering companion to visit the atmosphere seen where nuggety gold is found. And the underwall would naturally, as the quartz becomes solid while in motion, be cut and grooved, particularly that part corresponding to the mass in the column above, and, therefore, by clearing away the overlying quartz and now smooth, and of a ductile form, as seen at Stigitz; while the back or overhanging wall, especially near to the surface, is upheaved and disordered, and the edge of the stratum running across is carried upward, plainly indicating a force, and showing the direction from which it came. The shoots of mineral, or small ledges or veins, in the named does, but are entirely different from other mineral formations, presenting the appearance of a half molten mass, once gathered together and then stretched out for a few feet or a short distance, as it may be. And, again, gold is often found abundant in small particles on the underwall, as if the gold usually disseminated throughout the mass had been gathered by some influence or flux and deposited on the underwall of the quartz dyke; the various effects produced are caused by variations in temperature. At Stigitz little or no outcrop; whereas at Ballarat the overwall was generally excessive, and possibly in some cases in a liquid state; this is wanting in one as a proof of origin is abundantly shown in the other. The pure quartz drift of Ballarat is a proof of origin is abundantly shown in thickness; what are they but the mark of convulsions, filling the beds of rivers? And, again, the layers of clay, one of which I have seen to be greatly impregnated with mineral substances, iron pyrites partially calcined, &c., and basaltic lava flowing over all.

I have given proofs, as seen, of the origin of quartz dykes, and have endeavoured to account for their apparent richness at or near the surface. As nearly all gold mines are started by rough gold being found at or near the surface; and as adventurers are tempted to a trial of the ground by rich specimens, while a sample of quartz equally rich, if quantity be tested, without its showy qualities, would want its attraction; seeing is believing. A good specimen of gold, as other minerals, is a great attraction, and is often neglected, *au lieu de*. The apparent riches in depth may vanish away, and that which was only hidden from our view may be present in further exploration and all-absorbing appearances. "Where it is, there it is," both at surface and at the greatest depth; for such must be the case if quartz is to be considered the mother of gold. Another proof of which is given in the late practical report of the Port Phillip Gold Mining Company, where it is shown that there is no diminution of produce in depth, the gold being disseminated throughout the mass, therefore to a theoretical observer the quartz seems less productive as specimens or nuggets become more scarce. A. B.

P.S. Does Dr. Langdale's patent process for the separation of minerals by specific gravity in fumes prove that the mineral weight corresponds in the vapour to the weight of minerals as shown by their specific gravity in water, and are deposited when condensed in a similar order?

THE CORNISH SYSTEM OF WORKING MINES.

CORNISH MINERS AND NORTH COUNTRY COLLIERS.

SIR,—I was rather surprised to find in the Journal of Aug. 17 a letter from Mr. Hopkins, condemning the system in which mines are worked in Cornwall and Devon, and placing the managers of those mines half a century behind those who have the management of coal mines, &c., in the North of England and Wales. Mr. Hopkins acknowledges that the Cornish miners have paid great attention to their pumping appliances and dressing, and this, he says, might be left to Cornishmen; but he would recommend the transference of management of working to North country colliers. It would be almost as good a policy to send Cornish miners to manage cotton mills in Lancashire as it would be to send colliers to manage copper, lead, and tin mines in Cornwall. There is scarcely any comparison between working of coal beds and working of copper and other mines in Devon and Cornwall. Surely the most simple of all mining is the working of coal beds, and the most ignorant Cornish miner would be able to carry out such a work; but, on the other hand, there is a great contrast in the Cornish and Devon mines, where the various lodes are so thrown about by slides and cross-courses that it requires men of experience to carry out the workings.

Mr. Hopkins charges us with the old system of mining, using barrows and kibbles. But this is not the case in the most Devon and Cornwall for the last forty years the ship has been in use in Wheal Friendship Copper Mine, Devon, working at a depth of 240 fms., each ship carrying from 1½ to 2 tons of stuff; also in Devon Great Consols, where they have been sampling 400 tons of copper ore per month, besides many thousands of tons of poor stuff drawn to surface in the same month. We might almost number tons with many of the large colliers, therefore we are not so far behind on this point as Mr. Hopkins might suppose. With regard to man-engines, they would not be suitable to all large mines; such as Devon Great Consols, where men are thinly scattered, working for two miles in length, they would be of little use.

Mr. Hopkins also refers to Australia and America, to show that the Cornish are behind in the working of gold quartz reefs, &c.; but, as I have been in the mines both of Australia and America, I can testify to the fact that there are no men in those countries so well qualified to carry out the various mining operations as the miners of Cornwall and Devon. Who ever heard before of the Devon and Cornish miners being behind in mining; and Mr. Hopkins may rest assured they have nothing to learn in mining from any country in England or Wales. The mining world has been chiefly supplied with engineers, agents, and miners from Devon and Cornwall; men who have a thorough knowledge of mining, with all its latest improvements, and have generally given satisfaction to the companies that have employed them. R. NANKIVELL, *Tolpelt, Pembrokeshire, Aug. 22.*

MINING IN CORNWALL AND THE NORTH OF ENGLAND.

MR. EVAN HOPKINS AS A REVIEWER OF MINES AND MINING REPORTS.

SIR,—When reading the Journal of Aug. 17 I was amused with the observations of my friend, Mr. Hopkins. He should have known ere this I was too old a soldier to be frightened by his poggyn, or killed by a paper bullet. His remarks are very ungentlemanly; and, among others, I cannot help referring to his 8s. observation. Every Continental traveller knows the annoyance and inconvenience of the passport system. A man arriving at Vigo, and sailing thence for Oporto, Lisbon, and on to Huelva, returning to Cadiz and Lisbon, would experience a little of its difficulties, and find he could not clear out there for Oporto under 8s., including guide to custom-house, police, and booking-office. Mr. Hopkins's informant, when supplying this choice piece of information, probably added that he provided Mr. Ennor with letters of credit to persons in the country, which would not be acknowledged on presentation. I flatter myself I can travel as cheap and expeditious as Mr. Hopkins or any other person; and when 200 miles in the country, without knowing the language (as Mr. Hopkins observes), and only 2s. in my pocket, my reputation was sufficiently wide-spread that I did not require assistance from the British Consul, as Mr. Hopkins says mine inspectors have. I was offered ten guineas a day and expenses as long as I chose to remain; as it was, I was in a position to provide first-class passage home, and returned with more money in my pocket than I took out. I could go into Spain and save money, which is more than the majority of inspectors can.

Notwithstanding Mr. Hopkins's observations on what he calls sulphur deposits, I still maintain they are lodes embedded in killas. I also gave the run of the lode and dip; the cleavage is nearly on edge. This view may not be entertained by the school-taught surveyor, who never passed the miner's ordeal, or underwent the tedious operation of having the right arm hung on the left side. "Mr. Hopkins is not surprised at mistakes being made and improper terms used by Cornishmen, they not having the opportunity of seeing well-developed laminated rock." Cornish miners have travelled five times as much as Mr. Hopkins; they work practically the rock of every clime, and hundreds of them return with fortunes. It is strange such practical men, hourly watching the changes of Nature, have not the chance of learning what school-taught theoreticals pretend to know. It does not follow that an inspector of Spanish mines should be acquainted with those of Wicklow; and although I have several orders to examine them, such formations are so familiar to me that I can afford to dispense with Mr. Hopkins's recommendation, and report correctly on Spanish mines without. Such an inspection I consider an acquisition, and, perhaps, necessary to the would-be mine inspector before going abroad; I do not require it.

In what these lodes will end is only matter of opinion. It is not to be expected that a mass of sulphur like that at Rio Tinto is to become all copper at 100 fms. deep, neither is it a matter of surprise to me Mr. Hopkins's hasty conclusion of these lodes unbottoming; it is one of his vague theories, in which we have ever disagreed. In the plates of his first publication all lodes are shown to unbottom; he not only can see through a millstone, but his keen eye can also penetrate the deepest rocks, and define the bottom of all lodes. The Practical's experience is that all lodes do not unbottom; they may be found to have shifted. It is remarkable Mr. Hopkins should have wandered so far before entertaining us with his wonders of South America; it is his Sion of Despond. He may enter on any subject, and is certain to become submerged in these American wonders at last. His continual cry is "Gold! Gold!" and what he discovered at the bottom of this Sion. I would recommend him to keep nearer home, and not get lost. Reference having been made to America, I may as well apprise Mr. Hopkins of this fact, that so far back as the Declaration of American Independence I was selected by Mr. Ross, the manager of all the Bernalston Mines, and recommended to Messrs. Herrington, Harrop, and Gram as a competent person to go out as their manager and general surveyor. I was the first Englishman selected, and had entered into an engagement with them at a high salary, which I was prevented fulfilling by being sent agent in a dividend-paying mine, where my notice was not considered sufficient to permit me leaving. It was a serious loss, as I might now be able to describe some of the wonders of America, and rival my friend, Mr. Hopkins.

I shall now advert to the system of Cornish mining, and Mr. Hopkins's observations thereon, induced by the letter of an anonymous correspondent.—"A Shareholder in Great Wheal Alfred." Anonymous correspondents I esteem lightly. I know such letters are often the precursors of others couched in more defined terms; yet I consider them uncalled for, and that every man should stand in his own shoes. I am always an advocate for room in mines. I complained of the hot levels in the United Mines; and commented on the Cornish rule to adopt as the best in the cutting down of all their deep shafts in old worked-out mines. Many are doing so where practical men consider there is a chance of the mine paying. For instance, in Dolcoath (where they have the first old shaft still standing) it might be wise to cut down some of their shafts, where there is a good prospect in the bottom; but would adventurers suspend their dividends until such work should be accomplished? It is not likely. On the other hand, would shareholders in a losing mine make a heavy call to do it? Mr. Hopkins may rest assured there are more keen-eyed Practicals in the Cornish mines than he is aware of, who are quite willing to enlarge their shafts if he will only get them the "tin." No objection can be offered to men descending and ascending mines by steam-power, provided some safe, cheap, and expeditious means can be found. The man-engine is expensive, and the winding-engine is dangerous; I believe fifty men to be killed by it for one on the ladders. Then the question would arise, which is the best—Sacrifice of human lives, or wait an improvement in machinery for such purpose? This I leave for the discussion of the public. Premiums have often been offered for improvements in machinery of this class; I never heard of Mr. Hopkins being a successful competitor. Can he not introduce something he has seen in America applicable to such purpose?

The crude system of mining in Cornwall would fill the black diamond diggers of the North with amazement, if we are to believe Mr. Hopkins; but old Practicals of Cornwall assert that all the Northern knowledge was gleaned from Cornishmen. They will tell you of the great Tom Pearce, Charles Robins, and scores of others, who went from Cornwall into Staffordshire and all the coal districts as shaft sinkers upwards of sixty years ago. They also went into Wales, and introduced their best system of working. There is also this grand distinction between mining for coals and minerals,—the one is a certainty, on which large shafts can be opened without risk; whereas the other would often prove more ruinous than under the present regime. What would justify a company in sinking a shaft 12 or 14 ft. square on a young or untried mine, where no discovery had been made? I say it would be reckless madness.

Mr. Hopkins in his discourse has got to Australia. If he should from there wander to the Pole, he may find a change in Nature, and his powers of penetration might far exceed anything attained in South America. He had returned from Australia many years before quartz reefs were opened, consequently can know but little as to who is making progress there, whether Cornishmen, Welshmen, or his pets of the North; so I pass his favourite El Dorado, and turn to the splendid system so eulogised by him in the working of coal mines. It is not long since I found men working in levels not 2½ ft. high, in which I observed a tray fitted with sliders, and holding about 3 cwt.; on it I crouched a youth on all fours, a line from his waste connecting him with the tray; this I saw pass away, forcibly reminding me of a donkey with his four feet in a bowl. I saw the butt drawn away in a similar manner. This is a sample of Mr. Hopkins's mining, and the Cornish rule to adopt as the best in the cutting down of all their deep shafts in old worked-out mines, where there are no more in advance of Cornishmen.

Who improved the pumping-engine, and brought it to its present perfection?—Cornishmen! Who first introduced high-pressure steam?—Cornishmen! Who first ran

the locomotive on the common road?—Cornishmen! Where they not the first to experiment with gas? I was the first to introduce the long-stroke winding-engine, and carried it out, when the best engineer in the country refused to contract for it. I introduced the square skip or wagon, with chain guides, at the Delabole Quarries, near thirty years since, which the celebrated Stephenson twice visited, and took plans of, accompanied by Geo. Rennie, Millar, Gold, and others. He even wrote me after, to obtain further information. These plans he carried with him to the North of England. The travelling cranes in London—in fact, in every part of the world—are my invention, got up for Johnson, of the Dartmoor Granite Works, and which he afterwards introduced into London; for the drawings he presented my son, then fourteen years of age, with a 5*l.* note. The furnace for heating locomotive wheel-tires and machinery for bending them was introduced by me, and for which I refused compensation after it had been got up. Mr. Hopkins must not imagine that it is to himself and the men of the North all praise is due; they are only working on the fruits of other's studies. NICHOLAS EYKON, *Aug. 27.*

MINING—SPECULATIVE, AND AS AN INVESTMENT.

SIR,—I have read with great interest an article which has lately appeared in a Mining Circular, in which it is shown, I think beyond doubt, that investments in mining property are not so hazardous as the public generally suppose. I have taken the trouble to look into the matter, and I have satisfactorily proved, to my own mind, that the results arrived at by them are not only correct, but are considerably within the mark, if we take into consideration that many of the dividend mines which existed at the outset of their calculations have long since suspended operations. The writer has been, I think, if possible too fair with the public, for had he taken even the results of the last five years he would have shown a larger average profit, and a considerably larger percentage on principal. If the speculative world would be guided by such unimpeachable facts deduced in the article alluded to they would not have such a bad opinion of mining as a speculation. But, instead of this, I fear they are too often deceived from the easy way by the numerous specious advertisements which frequently appear in our daily papers, and which hold out, under a fair disguise, an alluring bait, too frequently greedily swallowed, and only discovered to be artificial when the treacherous hook is felt sticking in the gills. But the article alluded to related principally to dividend mines, yet dividend mines were not always dividend mines, and this fact leads me to turn my attention to progressive mines. Why, I should like to know, may not progressive mines, judiciously selected, be, in a certain proportion, free from risk? When I say "free from risk," I mean as free as any speculation can be, for no speculation is free. I see no reason why they may not. Mines under *bona fide* management, in good districts, with good indications for future improvements, surely must be worth investing in. I should never advise anyone to trust to his own judgment, unless he is practically acquainted with the "ins and outs" of mining generally. To return, then, to our argument, in progressive mines I will take for example—CARN CAMBORNE, SOUTH CARADON WHEAL HOOPER, WEST POLMEAR, UNITY, GREAT RETALLACK, BOTTLE HILL, and WHEAL CREBOR, and I maintain that in the whole list of progressive mines none can be pointed out with greater chances of improvement than in these seven. CARN CAMBORNE is situated in the very best district in Cornwall, and at the present moment, although so young in operation, the indications—aye, not only indications, but the discoveries—are such as to warrant my belief that in a few years we shall see it second to none in the county; and what at present renders the speculation in this mine pleasant is the very probable fact that no calls will be required.

SOUTH CARADON HOOPER is in the rich Caradon district, and few mines better situated. At any moment, owing to the abundantly diffused mineral riches of this neighbourhood, an important discovery may be made; indeed, lately a lode has been cut worth 1 ton of rich ore per fathom, and likely to greatly improve. In fact, I see no reason why another East Caradon may not be met with here. Patience certainly is required, but when we see the reward that the promoters of East Caradon have gained, may we not indeed wait hopefully?

WEST POLMEAR is a thoroughly good speculation, being in the run of the best mines in the St. Austrey district, having the first lode of Wheal Polmeare traversing the sett, and which they are endeavouring to intersect, the first of which is expected to be met with in the course of a week or two. If this lode be cut rich, shares would quickly rise to 3*l.* or 4*l.* per share.

UNITY, in Gwinear, has several points coming off, which I anticipate, from officially reported indications, as also from private information, will place it in a much better position in the mining list than it has hitherto occupied. The lode in the 75 cross-cut north will likely enough before this letter is published in the Journal be cut—at any rate, from all appearances, it must be in a very short time, and I have every reason to believe that it will open out rich.

GREAT RETALLACK speaks for itself. Without taking into consideration the chance of a great discovery of lead, it can at any time make, even at the present price of spelter, such returns of blende as will, at any rate, prevent the necessity of making calls, and should a rise in this mineral take place, the mine would immediately be working at a large profit.

BOTTLE HILL is a mine which has been sadly neglected by the public, and it seems strange to me that this should be so, seeing that it has never, since the present company have worked it, made a single call. It has sold over 1800*l.* worth of tin this year, and in the course of two months will sell at different periods an aggregate amount of 17 tons in addition. There has been an improvement lately in the Buckle, but the lode is locked together the prospects of the mine are exceedingly good, and I should especially advise an investment in this mine.

WHEAL CREBOR adjoins Devon Consols, and affords as fair a prospect of good results as any mine in Devonshire. Immense returns were formerly made from it, and equally great ones may be expected from the course of operations now pursued. Shares are at a very low figure in comparison to their value, and I think no one would regret laying out a little money in this adventure. Indeed, all the mines I have mentioned are at ridiculous prices, and if a small sum were laid out in each, no doubt a large profit would be made in a very short time. The more the merrier, is an old saying, and I hope soon to see a larger proportion of the public entering into this species of speculation, and that they will I firmly believe, especially if money becomes cheaper owing to a further decrease in the rates of discount. However, "Time tries all." VERITAS, *Aug. 28.*

APPLICATION OF MACHINERY TO MINING.

SIR,—As the destruction of a mine is a national loss, I need not ask of you, I presume, twice to do what you can to save it. They say that while there is life there is hope. Now, I am given to understand that for the next two or three months Great Wheal Alfred, with a bad and expensive shaft, will give not less than 500*l.* profit per month. I see that not one-fifth of the proprietors voted for its abandonment; and I submit to all the adventurers if, under these circumstances, it would not be a wise and a proper step, and directing him that if he was for prosecuting the mine to send it to some one, say Mr. Nicholls; whilst if he was for the abandonment of the mine, to then send it to Dr. Beattie. Another plan I would suggest; let those tired of the concern relinquish their shares. And I would ask, seeing that Alfred Consols and this mine are so intimately connected, whether some plan cannot be found for amalgamating the two mines? To show the wisdom of perseverance in mining, I will name the following:—A friend of mine held two original shares; at last he got tired of paying every two months a 10*l.* call; he relinquished his shares, and received 32*l.* for his share of the mine. He had paid one call more and kept the shares they would now be worth near 200*l.*

I was glad to see Mr. Crease's remarks in last week's Journal, which confirm my views to some extent. I think he is ignorant that our levels are signs, or he would not have found fault with my plan for using horses underground. If Mr. Crease's plan will do for driving as well as for sinking, then in cross-cutting his inclines may be used to advantage. I am something of a mechanic myself, and have long considered the practicability of using mechanical means, especially for the sinking of shafts; and had not Mr. Crease done the thing already, I should not be afraid to undertake to produce a machine to do the work cheap, quick, and well. I might fall in my first experiment, but a little perseverance would overcome that. Of the importance of mines drawing more of their funds to surface a specimen is to be seen in Great Wheal Alfred, where, unfortunately, it happens that some important places cannot be seen, because former pillars, instead of bringing their loads to the surface, filled up these important places with them, little thinking, or not caring, or not knowing the importance of leaving the same vacant. For instance, the agent may not put any value on or see a certain indication, yet another agent might see something like he had seen before, and the same might lead to great results. I cannot for a moment imagine any other than that if every mine had a good shaft and a powerful drawing-machine, the levels would be carried wider and higher, and further apart than they are; thus the mine would be worked on a larger scale, whilst I doubt not, in the end, would be found by far the cheapest and best plan; whilst the having bad shafts and inadequate means of drawing the stuff and forcing the agents to have recourse to plans they would not otherwise resort to. I had almost forgot to observe that, if I read Mr. Crease's letter aright, he would undertake to put a new shaft in the western ground to the bottom of the mine in some sixteen months for 3000*l.* Now, as this shaft is considered by competent judges all that is required to make the mine a paying one, I ask will not the adventurers wait that time, pay that money for the shaft, and expend in machinery and other parts of the mine (say) 7000*l.* more for a first-rate dividend mine? A LOCAL SHAREHOLDER, *Penzance, Aug. 27.*

GREAT WHEAL ALFRED.

SIR,—I think the remarks of the Chairman at the special meeting on Tuesday last most proper and fitting. It is not at all surprising that after an outlay of 71,985*l.* in calls, with no better prospect, in fact worse, than for a long time, they should consider it time to stop such a large outlay. Mr. R. Nicholls will, of course, make every effort to continue the working of the mine; it is partly in his estate, and if it stops will greatly prejudice the working of Alfred Consols, also on his estate, and the working of both is of the greatest importance to him, both as regards salary at Alfred Consols and as owner of both mines. His son-in-law also runs a goodly sum of money for the mine from both mines, for services the men will not have. Mr. Wm. Hoeking is very eloquent on the occasion, has some large flour-mills very near, if not actually in the sett, and no doubt makes a good thing of supplying the miners with their "staff of life." Mr. J. E. Foot represented the two firms of Sandys, Vivian, and Co. and Harvey and Co., who supply nearly all the vast quantity of materials used on the mine, amounting to (say) about 600*l.* per month. Mr. T. Painter is evidently very anxious that his son should continue to be pursuer of the mine, and thus tends a helping hand, and votes against its stopping. Mr. T. Trelease (as well as Mr. Nicholls) qualified for the occasion, and to support the others by voting, &c. Now, Sir, what a set of independent (?) men, all anxious for the working of the mine, are here! It is a pity that *absentees*, as well as those present at mine meetings in London, do not at all times know the parties who *vote, protest, and write* in such a way as we have seen here. Mr. Nicholls said that *reducing* the Cost-book System any single shareholder could continue the working of the mine. True, he can do so, but he (or they, if more than one) must first give ample security for the value of the plant and machinery on the mine, and in case of any action prejudicial to the general interests of the adventurers, the Vice-Warden would, on appeal, stop in and put it right. Who of the adventurers would object to give security for the 10,000*l.* worth of machinery here? Aye, who?

Mr. Nicholls attacks the manager, because he would not carry out his (Nicholls's) wishes, and do certain work. How very absurd! A fault must be found, and a victim, but I protest against Capt. Baguelhole being the man. He has, I am informed, worked the mine as well as possible under the circumstances, as well as any previous agent worked it, and I have no doubt as well as any one else could work it. With regard to the 143 cast, the captain gave his opinion to the committee, and had his instructions, on which he acted; and what is there more common than for agents to have opinions different from other agents, and in this instance Baguelhole has his opinion and Nicholls has his, which is certainly self-interested, while Baguelhole's is for the mine and its safety and the adventurers, and if he errs it is on the safe side. Mr. Hoeking also follows on *suffice*. Surely all this is plainly seen through, and the agent who would work the mine, time know what interest they will serve by stopping or working the mine. Mr. Hoeking asks "why they cannot have a rich mine in Great Alfred?" Alas! Mr. Hoeking, will you kindly point out where the wealth is to be found, or will you generously provide the 1000*l.* per quarter loss (soon to be much more) to find it? There is the rub. How can the mine go on with only in one end, reserves nearly

gone, and 17000. per month to pay? I see by Mr. Hollow's letter that the necessary expenses to keep the mine going in engines, engines, trammers, &c., before spending a penny in the work or tribute, is enough to keep an ordinary large mine going. The committee would not doubt be glad to have suggestions, good ones, as to how to work the mine at much less cost, but they know it cannot be done, and wisely say stop, and put your money somewhere else, and not listen to men who bear not the burden, while they reap all the advantages.

Thornhill-street, City, Aug. 28.

THOMAS SMITH.

MINING IN CORNWALL AND THE NORTH.

Sir.—Nothing can be more certain than that everyone knows where the shoe pinches better than the poor unfortunate who wears it. Although there may be many improvements to be effected in Cornish mining, especially as regards the drawing, what greater absurdity is there than to compare the working of our mines with those of coal and iron mines? I take it that coal is generally found in immense beds or layers, and iron ditto; and that when found by boring, it is only a question whether the size or quality of the seam will pay for working; and when once this is affirmatively ascertained the lucky owners may turn to and sink as large a shaft as they please, with all the improvements of the day for quick and easy dispatch, both of the stuff and men, certain that the results of the workings will pay them. How very different here in Cornwall. Mr. Robert Knapp, in last week's Journal, hits Mr. Hopkins in the right place. Here we poor fellows have to speculate not by boring to find a floor, but sink a shaft and drive levels on the lode, not knowing exactly where to drive or where to look for the ore. We know very well that we may have a most kindly gossan, or beautiful lode, all the requisites except the ore, for that we have to sink, and drive, and search; and after sinking and driving, and spending many thousands, may not have it after all; or if we find the bunch, it may underlie so much that it will require several shafts on it before it is all worked away. How, then, can we sink a leading shaft to command all the fine advantages of your North country vertical ones? We know, also, that sometimes we can sink our shaft on and thus prove our lode as well at the same time for a quarter part of the cost and time that it would require to sink it in the country; but that in doing so it may take some ugly turns; still it answers our purpose, and we sink. It is amusing to see such lucubrations from a "Local Shareholder" about Great Alfred. Poor fellows! they had better stick to their own line of business; and let them remember that men who have spent their lives in this sort of work, and who have worked at all sorts of boring, blasting, damming, and sinking, ought to, and have, some opinion on it. I should very much like to see the sort of machine to be put down into Great Alfred shaft, for instance, to sink it. What sort of a machine can it be to be put down 260 fms. from surface amongst all the pitwork, rods, skips, &c., and I wonder how many mines are rich enough to speculate on the small outlay of 22500. as a trial? A MINER.

ASHBURTON UNITED MINES—STEAM STAMPS.

Sir.—By Capt. Edwards's report of these mines in the last Journal, shareholders and the public would be led to infer that from great exertion twelve more heads of stamps had been got to work in addition to the former number. I should like to have this statement confirmed: as I believe that, unfortunately for the shareholders, who know but little what is really going on at the mines, a few days since there were but 14 to 16 heads at work, including the new ones alluded to; for, from my own observation, if the new heads were really at work, the old ones were really standing still; and from what I could see and learn in the neighbourhood of the mines, the number was more likely to decrease than increase, and that we shall find at our cost at the next meeting, for call must then be made. Some time back Capt. Charles Thomas inspected these mines and strongly advised steam stamps to be erected, but instead of doing so they have erected water stamps, and now have no water to put them to work. I am informed, on good authority, that had this advice been taken the mine at this moment could be paying at least 10s. per share bi-monthly in dividends, instead of a call looming in the future. It will scarcely be credited that at this time there is some 30000. worth of beautiful stuff at grass, over 20,000. worth in sight, and the quantity increasing. That Ashburton Mines have paid their way for some time is well known, and that with steam stamps dividends could be paid is not doubted by parties quite as well or better acquainted with the mine than Capt. Edwards or the committee of management themselves; but without that power it not only will never pay, but must make calls, and this our next meeting will prove. Now, should this be so, with ore at grass and in sight that could be returned at sufficient profit to erect and pay for steam stamps, besides paying the shareholders every farthing of their outlay, we are about putting our hands in our pockets to pull out, instead of the more agreeable task of putting in. It may be said they are waiting to see the lode in the 78. Well, suppose it cuts rich, steam will then be the order of the day; but, on the contrary, if it cuts poor, I conclude the same insignificant mode of working will be proceeded with, and hence no profit can be made, for since you have lost the Birch Tor water I am bold to say you will never get enough to drive sufficient head to pay cost, much more dividend. I assert, therefore, not a day should be lost without carrying this much-desired object into effect, and if any shareholder doubts this, let him go to the mine, and he will then be better convinced than by anything I can say. That this is the only way of making Ashburton a good paying mine, "A Shareholder" need not be a miner to see; but he will soon see that it is not every committee who have the sense to get the management of a mine into their hands have the sense and ability to grasp the substance, even when within their reach.

One word as to the last report, issued in June, and I will not trespass longer on your valued space. The assets show—Ore prepared for sale, 14000. tin to be raised to 5000. = 36000. Balance, or last account, 5000. = 5000. I forbear 3500. charged for new wheel-plate, dues, &c., costs, 24000. but still leaving balance to the good of 3147. This, brother shareholders, is what is promised us. The balance-sheet, I believe, will show very different results—watch it; and if so, what will be the cause? Not the falling off in the quantity of tin, for never since the mine started has there been so much at grass and in sight; neither is it for the want of stamps. No. Capt. Edwards tells you, by great exertion 12 more stamps have been erected. I have told you the cause, and it is now left for the shareholders to find a remedy.

A SHAREHOLDER FROM THE COMMENCEMENT.

A LIBERAL LANDLORD.

Sir.—The spirit of selfishness has of late years been so prevalent amongst all classes of men connected with mining and other pursuits, that the few liberal-minded acts of fair dealing and generous landlords stand out in bold relief. You have heard of the oppressive exactions of the late Duchy agent, whose removal from office is hailed with much pleasure by duchy lessees; and you have heard also of many absurd restrictions imposed by other lords' agents in their mineral grants, and of the enormous charges made for the grants and leases. In the case of the Duchy, the first thing required has been the payment of 80. in advance for the license and minimum rent for one year, and then the very high dues required to be paid in course of construction, and it is admitted that the difficulties which prevented their success were almost entirely attributable to the want of ready means of communication, and it is thought, not without reason, that as railway facilities are now provided, and as 40,000. have been expended in exploratory works, and the erection of a very excellent plant—including smelting works, first-class machinery, and miners' houses, an excellent opportunity is afforded for the successful prosecution of the works by a fresh body of adventurers—additional capital being apparently all that is required to ensure success. The simple fact, moreover, that during the past three years the lead and silver produced from the mines has been of the value of 65,000. should of itself be sufficient to give confidence to English capitalists.

From all that I have said of North Hado, I conclude that both lords and adventurers are likely to derive immense wealth from the several lodes of lead ore (galena), of great width, which are now being opened within the large area before mentioned. Capt. M. Francis—a good authority—speaks confidently of abundant early returns. Surrounded by several dividend-paying mines, it can scarcely fail to enrich both lord and adventurer.

London, Aug. 27.

AN ADVENTURER IN CORNWALL MINES.

MINING IN PRUSSIA.—The whole of the mines, machinery, and smelting works belonging to the Wildberg Great Consolidated Mining Company are to be offered for public sale on Sept. 16—the advertisement appearing in another column of this Journal. The property is of ample extent for mining operations, covering 117 morgen (about 80 acres), and is well situated on the Wildberg, about ten German miles from Cologne and four from the Cologne and Siegen Railway. While the company were energetically working this railway was only in course of construction, and it is admitted that the difficulties which prevented their success were almost entirely attributable to the want of ready means of communication, and it is thought, not without reason, that as railway facilities are now provided, and as 40,000. have been expended in exploratory works, and the erection of a very excellent plant—including smelting works, first-class machinery, and miners' houses, an excellent opportunity is afforded for the successful prosecution of the works by a fresh body of adventurers—additional capital being apparently all that is required to ensure success. The simple fact, moreover, that during the past three years the lead and silver produced from the mines has been of the value of 65,000. should of itself be sufficient to give confidence to English capitalists.

BRITISH ENTERPRISE IN NEW ZEALAND.—It will be recollected that some time since a company was formed in England for profiting by the introduction of British capital into New Zealand—the Great Barrier Land, Harbour, and Mining Company—and the very excellent prospects of success held out by that company led to the formation of a rival undertaking for establishing and carrying on a store upon one of the most favoured spots upon the property of the parent company. The New Zealand Store and Commercial Company has a capital of 25,000. shares, and has been established upon the limited liability principle. Its operations will be confined to Port Fitzroy, a magnificent harbour, well sheltered, and available for ships of any tonnage. The requisite land has been obtained from the parent company for ten years, at the nominal rent of 1s. per acre per annum, with option of then taking a lease for 21 years, at not more than 2000. per annum.

GOLD IN NOVA SCOTIA.—Mr. W. Cunard, of Halifax, has been very successful in his prospecting for gold at the "Ovens" Diggings, near Lunenburg, Nova Scotia. Having obtained a number of nuggets, he returned to Halifax to obtain the necessary men and materials, and is now again at the diggings, well prepared for extensive operations. The miners at Tangiers, about 75 miles from the Ovens, are reported to be doing well.

A splendid lump of copper ore, weighing 8 cwt., will be sent from South Australia to the Great Exhibition of 1862. In the lump are grey, black, and green ores, green and blue carbonates, crystallised and uncrystallised, and a small piece of red oxide, mixed with iron ore and pipeclay.

Coal has been discovered near Launceston, in Tasmania.

THAMES TUNNEL COMPANY.—Receipts for the week ending August 24, 587. 3s.: number of passengers, 13,956.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending August 25 was 11,729. 3s. 1d.

HOLLOWAY'S PILLS—DISEASES OF THE DIGESTIVE ORGANS.—These admirable pills contain no mercury nor other noxious ingredients, and are, therefore, peculiarly adapted for those ailments which often attack the mucous membranes during the summer. Holloway's pills cleanse the blood, stomach, liver, and lungs from all harmful impurities, and subdue local irritation. They improve the powers of digestion, and speedily eradicate disorders of the liver, bowels, and kidneys. A course of these cooling pills prevents the distressing bilious attacks induced by hot or humid weather, and dispels flatulency, giddiness, headache, and costiveness. As purifiers of the blood, Holloway's pills stand unrivalled, hence their power of clarifying the complexion, removing sallowness, checking the growth of pimples, and renovating the vital functions.

Meetings of Mining Companies.

EAST WHEEL RUSSELL MINING COMPANY.

The quarterly general meeting of proprietors was held at the company's offices, Bishopsgate-street, on Monday, Mr. HALL in the chair.

Mr. J. H. MURCHISON (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed.

A statement of costs and returns, up to the end of June, showed—
 Mine cost, merchants' bills, &c., for April, May, and June, £2057 0 0
 Dues or royalty..... 119 15 3
 London expenses, printing, books, &c. 57 4 7=£2233 10 10
 Ore sold for March, May, and June.....£1533 2 7
 Transfer fees..... 3 6 6= 1886 9 1

Leaving debit balance.....£ 347 10 9

The balance of assets over liabilities was 4847. 6s. 1d.

The report of the agent was read, as follows:—
 Aug. 24.—Surface: At Homersham's shaft new and commodious dressing-floors have been laid out, and nearly completed, with the necessary sheds for protecting from the weather those engaged in the dressing department. Underground: Homersham's shaft is in regular course of sinking, and is down 5 fms. 3 ft. below the 110, in which the ground is tolerably favourable for progress; in this shaft a clatter-plat and beamer-holes have been cut, clatter put in, and the 6-in. lift has been removed from the 100, and replaced by a 10-in. lift, the water having become too strong for the smaller pitwork. Homersham's Shaft: The 110 fm. level cross-cut north (Fewin's) has been driven 6 fms. 2 ft., and intersected the north part of the lode, which had been cut through, and proves to be 3 ft. wide, worth 1½ ton of ore per fm. The 110 has been driven west of Fewin's cross-cut 3 ft., and east 1 fm. 4 ft.; the lode is 3 ft. wide, and worth on an average full 1½ ton of ore per fm., which is its present value, and it is still very promising. John's winze, sinking below the 100 east, is down 4 fms.; the lode for this depth has yielded on an average 1 ton of ore per fm. In the present bottom it is improved, and is worth 1½ ton of ore per fm. The 100, on the north part of the lode, has been extended east of Davey's cross-cut 10 fms.; the lode is large, 3 ft. wide, composed of capel, peach, quartz, mudic, black oxide, and yellow copper ore—tribute round; in the present end it is 4 ft. wide, and yields good stones of ore. The 100 east, west of Davey's cross-cut, on the north part of the lode, has been extended 15 fms., and communicated with the main level on the south part of the lode; the lode on an average is worth 1 ton of ore per fm. In the back of the 100, on the south part of the lode, about 3 fms. west of Davey's cross-cut, a rise (Contin's) is being put up; it has reached 7 fms., and the lode for the whole height is worth 1½ ton of ore per fm. The 88, on the south part of the lode, has been extended east 7 fms. 1 ft., and for 3 fms. of this distance the lode yielded 3 tons of ore per fm.; in the present end it is 3 ft. wide, and worth on an average full 1½ ton of ore per fm. From the promising appearance of the yellow copper ore, altogether presenting a very promising appearance. The 88 has been driven west of Hitchins's engine-shaft 13 fms. 2 ft. 4 in. on a portion of the lode, which is composed of capel, mudic, quartz, and occasionally good stones of ore. John's rise, in the back of the 77 east, has been put up 5½ fms., and communicated with the 66 above for footway, and for conveying the stuff from the 66 to the stails. The 66 has been driven east 6 fms., and the lode where cut into is composed of capel, mudic, prlan, and rich stones of yellow ore. The lode in the slope in the back of the 100, west of Oats's No. 2 winze, is worth 177. per fm. The lode in the slope in the back of the 100, east of Oats's No. 1 winze, is worth 127. per fm. The slope in the bottom of the 58, east of Benney's winze, on the north part of the lode, is worth 147. per fm. From the promising appearance of the 110 east an improvement is daily expected, and altogether the prospects of the mine are good. We propose sampling on Friday next about 250 tons, and we calculate on raising bi-monthly from 200 to 220 tons, at a cost of about 6000. per month.—JAMES RICHARDS, JOHN GOLDSWORTHY.

The CHAIRMAN having moved the adoption of the report and accounts, said that the committee had hoped to have submitted a more favourable balance-sheet upon the present occasion, but at the same time proprietors must recollect that there had not been any call for nearly two years, and that during the past 18 months there had been an expenditure in the purchase and erection of the new engine and its appurtenances of about 12000., the whole of which had been liquidated by the returns from the mine. According to the report of the agent, there was a probability not only that the returns would increase, but that the same would be diminished.

Mr. W. H. FARRER enquired if the prospects for the next three months were as favourable as those which the agent's report presented at the last meeting?—The CHAIRMAN replied that, according to the agent's report, their prospects for the next three months were more encouraging. He might state that the accounts had been audited by the committee before being presented to the general meeting, in addition to which the cost-sheets and vouchers were audited every month.

A SHAREHOLDER enquired if the committee knew of any reason why the present market price of the shares was so low?—The SECRETARY knew of no other reason than that it did not appear to be at present a favourite stock in the mining market, its attention having for the time been attracted to other subjects, to which the general depression that had for some time existed had, of course, had the same effect upon East Russell shares that had been the case upon all other descriptions of mining property. So far as the mine was concerned, its actual position and general prospects were at the present time more favourable than when the shares were quoted at 30.

The CHAIRMAN stated that a letter had been received from Mr. Matthews, the purser of Wheel Russell, which contained a proposal for the sinking of a boundary shaft between the two mines at a joint expense.

The SECRETARY read the letter referred to, and also the reply of Capt. Richards, which latter was to the effect that the shaft would be of no advantage to East Russell.

Mr. FARRER enquired if the opinion of Capt. Richards was confirmed by that of the committee?—The CHAIRMAN replied that it was in every respect in accordance with the committee's views. They could see nothing to induce them to accede to the proposal, seeing that they had a shaft within 100 fms. of the boundary, from which levels could be driven, and the value of the ground proved.

Mr. MORGAN enquired the reason they were driving the 88 fm. level west of Hitchins's shaft, when they had a lower level, and the object was to sink as quickly as possible?

The CHAIRMAN did not know the exact reason why the 88 had been selected for driving instead of the 100, but it might arise from the fact that in Wheel Russell they had found promising backs in that direction.

Mr. FARRER enquired if it would be better to drive the 100 fm. level in Hitchins's shaft, because it would be in new ground; and it had always been expected that a great quantity of ore would be found on the western side of the set—it might turn out to be so.

The SECRETARY said that, no doubt, the agents had good reasons for driving the 88, and they certainly ought to be the best judges of how to work the mine. The 88 had been the best level at the eastern part of the mine.

The report having been received and adopted, and the accounts passed and allowed, it was unanimously resolved that the proposal from Wheel Russell for sinking a boundary shaft at a joint expense could not be entertained.

The meeting was then made special, for the purpose of appointing a member of the committee in the room of Mr. Hestock, deceased; but there already being three working members, it was agreed that the matter be deferred till the next meeting.

The meeting then separated.

OLD TOLGUS UNITED MINING COMPANY.

An ordinary general meeting of shareholders was held at the company's offices, Austin-street, on Tuesday, Mr. M. POWELL in the chair.

Mr. W. CHARLES (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed. The accounts, from April to June, showed—

Balance last audit.....£1941 0 2
 Mine cost..... 569 18 0
 Merchants' bills..... 168 4 7
 Sundry bills..... 52 4 5
 Discounts, &c. 10 18 0
 Calls due on shares forfeited at last meeting .. 24 0 0=£2066 5 2
 Call.....£1196 0 0
 Black tin sold..... 105 18 11= 1301 18 11

Leaving debit balance.....£ 764 6 3

The report of the agent was read, as follows:—

Aug. 24.—The new south lode is intersected at the 52 by a cross-cut 60 fms. south from engine-shaft, and developed by level 5 fms. west of cross-cut; for this drive it is small and unproductive; this end is about 10 fms. to the east of the shaft, which is sunk about 10 fms. below surface, in which the lode is 1½ ft. wide, yielding pretty much mudic and stones of yellow copper ore—a very kindly lode; we shall drive under this shaft with all speed.—South Lode: This lode is cut at the 52 by the same cross-cut, 12 fms. south of engine-shaft, and opened on by a level, 42 fms. west of the cross-cut; for most of this distance the lode is from 2 to 3 ft. wide, composed chiefly of mudic with stones of yellow copper ore; during the last two months, for about 4 fms. in length, the lode has produced from 1½ to 2 tons of copper ore per fm.; the lode maintains its size, but at present is only yielding stones of ore, with an indication of an early improvement. The 42 is 54 fms. west of engine-shaft; the last 20 fms. of which are on the south lode; the lode is from 2 to 2½ ft. wide, composed of quartz, mudic, flookan, and stones of good quality copper ore, and letting out pretty much water, which we consider to be a favourable omen. The 32 is 61 fms. west of engine-shaft; the last 19 fms. of which are also on the south lode. In this drive the lode is from 1 to 1½ ft. wide, producing occasional stones of ore. In the end of the lode is 1 ft. wide, composed of mudic, blende, and a little yellow copper ore. Looking at the extensive piece of untired ground to the west of these ends, which is traversed by the great cross-course, about which the neighbouring mines have been found very productive, warrants a vigorous prosecution of all the ends in that direction, which for the present is the only course I would recommend you to pursue. We hope to sample 14 or 15 tons of ore in about a month from this time, and next week sell about 700. worth of tin. We estimate the cost for the next three months, including merchants' bills, to be from 1750. to 1800. per month.—W. FARRER.

The CHAIRMAN, in moving the adoption of the report and accounts, stated that since the last meeting the works had been conducted under the control of their new manager. It would be seen from the report just read that a marked improvement had taken place in the mine, for at that time it presented scarcely an encouraging point. The agent's report stated that the 52 had been driven for 6 fms. in length through a very fair cross-cut, and although the lode was not very rich in the present end, it was still strong in value. The lode in the other levels had improved, and great confidence was expressed in the result of driving back towards the great cross-course. All the productive mines in the district had made ore near this cross-course, therefore they had reason to suppose that, as they in Old Tolgus approached that cross-course, the lode became more kindly and productive. He was glad to say that the costs were being reduced without retarding the efficient prosecution of the mine.

The SECRETARY said that since the last meeting the arrangements with regard to the management had been carried out, the result of which had been that the monthly cost was materially reduced. During the last month there had been more done in opening out the prospects of the mine than had been done for the last 12 or 15 months. They had three very kindly ends. At the 52 the lode was not so productive as it had been, but it still maintained its strength; and there was every prospect of it becoming productive as it approached the great cross-course. There had been several other points in operation, but in consequence of the depreciation in the price of tin, it became a question whether they would prove remunerative, and it had, therefore, been deemed more politic to confine their attention—at any rate for the present—to the driving of the levels on the course of the lode. Although the south lode, where cut, had not proved so productive as had been hoped would have been the case, yet as this lode when seen in the shaft had been most favourably spoken of by all the authorities who saw it, the aim of the agent would be to drive the level under that shaft with all possible speed. He need not remind the proprietors that it was not always an argument against a lode because it was not rich at one particular point. The general opinion was that by driving west they would

intersect a course of ore, it being thought they were at present only at the commencement of the shoot of ore. He thought they had good reason for believing that they had seen the worst of their days, that the calls in future would be very much easier, and that the costs would be considerably less—indeed, he was hoping that, by an increase of their returns, their position in a few months hence would be so far improved that they would be able to consider themselves in a satisfactory position.

The report having been unanimously received and adopted, and the accounts passed and allowed,

The CHAIRMAN, referring to the financial position of the company, stated that they had a balance of 7407. to liquidate, to which must be added the estimated cost for the next three months of 5500. Under those circumstances, he would recommend that a call of 2s. per share be made.

Mr. DAVIDSON enquired the length of ground from the present ends to the boundary? The SECRETARY replied that there were about 150 fms. of ground between the present end and the boundary, and about 50 or 60 fms. to the great cross-course.

A SHAREHOLDER had understood that an independent agent had been underground, and that he had stated he considered the lode one of the most satisfactory he had ever seen. A call of 2s. per share was made, a discount of 5 per cent. to be allowed if paid on or before Sept. 3.

A vote of thanks to the Chairman was passed, when the proceedings terminated.

NORTH HADOF MINING COMPANY (LIMITED).

A preliminary meeting of promoters was held at the offices of the company, Gresham House, on Wednesday, for the purpose of submitting the documents and title of incorporation to the shareholders and others interested in the undertaking.

Mr. BURN in the chair.

Mr. T. SPARGO (the secretary) read the notice convening the meeting, and the following report:—

Aug. 24.—Since my last our men have been engaged in uncovering the Frongoch lode in the western part of the grant; we have not yet reached the rock here, but expect to do so next week, and I doubt not we shall find the vein of the same character as the Frongoch Mine, where the lode is very fine and rich coming towards this point. I may remark that the Frongoch main lode was missed by the East Frongoch Company, in having worked on a south part or branch of it. We have also had two men getting down on the Frongoch lode where we discovered it. I am proud to inform you that the lode is improving every foot we go down; it is now 20 ft. wide, a mass of gossan, spar, lead ore, and sulphur throughout; a fathom or two more will bring us into a rich body of lead ore, and such an one as is not found every day in any part of the kingdom. Two men have also been engaged in order to open out on a deeper part of the middle lode, and when this has been accomplished I think we shall be able to sink a shaft for some fathoms deep on its to the bottom of the lode, as the lode is also the Frongoch vein, which we have opened upon some fathoms deeper than where I intend to cross-cut it from the middle lode; in other words, I am opening out on these veins in the valley, thinking it will drain the veins as they run into the hill, in order to get down as deep a trial-shaft as we possibly can. I could not exactly account for the very strongly-marked appearance of the Rhyl Gotta lode at surface; I may here remark no vein I have ever seen in any country is so strongly marked as this; my attention was called to the lodes in the ground going to the eastward of us, and I now find, and I am certain I am not mistaken, that the Nant-y-Cris, Dolwin, and Llanerol lodes all form a junction in this place, together with a strong cross-lode; the latter of which is to be seen at the mouth of the old level driven on the middle lode, and on which I intend sinking a junction with the middle vein, where I before stated there is a course of carbonate of lime, gossan, spar, and stones of lead ore for 4 ft. wide in the middle of the course; at this place by driving north from 4 to 5 fms. on the cross lode we shall get into the Frongoch vein at its junction, and where it is almost impossible to miss finding a rich mass of lead ore. The Nant-y-Cris, Dolwin, and Llanerol lodes after forming a junction, form one vein, which is from 40 to 50 ft. wide, in which is encased, so far as human foresight will permit us to judge, the greatest body of lead ore that has ever existed in this country. I have given you a sketch of the lodes with this, by which, and by what I have here described, you will be able to form some idea of the value of your property. It is impossible to say what capital may be required to hit on the great course of the lode, but I have named—probably 500. Rhyl Gotta may do so; and the same amount on the middle vein under the carbonate of lime; and 500. more might do the same on the Frongoch. But whether it takes more or less than this, of one thing you may be certain, that the three courses of ore do exist, and that they must and will be found by a very small expenditure. I intend commencing a shaft on Rhyl Gotta as soon as I possibly can.—ABRAHAM FRANCIS.

The CHAIRMAN said he felt great pleasure in meeting the proprietors upon the present occasion, as he had to congratulate them upon having acquired a very valuable property upon most reasonable terms. He knew it was frequently charged against the landlords of Cardiganshire that they exacted extravagant terms; but he was happy to have it in his power to prove that it was quite the contrary as far as their affairs were concerned. Mr. Chambers, their landlord, had met them from the first in the most liberal spirit, and conceded them their holding at 1-20th royalty for a term of forty years. He thought he could challenge Cornwall or any other part of the kingdom to present fairer terms than those to their mining tenants. He knew, from his own knowledge, that in many parts of Cornwall the same spirit of liberality was not evinced; for, although he did not wish to say anything invidious with regard to any other part of the country, yet it was nothing but right, when a district had by some means falsely acquired an unfavourable name, that the matter should be set right by the public, and credit given where it was due; and for that reason he felt bound to state that the terms of agreement of the company's holdings were all that could possibly be desired. They had as low a royalty as was usually granted in most of the mining districts; and, moreover, they had it on a lease for 40 years—a sufficiency of time to enable them to carry out their mining operations without the fear of their being brought to a premature close. Besides which their lease contained all the other usual clauses; such, for instance, as power to divert water, to make reservoirs, and to build machinery, offices, and cottages for the miners. He might inform the proprietors that there was a good supply of surface water for driving water machinery, and he had understood that the quantity of water in the rock was comparatively easy, although in lodes of the magnitude of those in North Hado, ranging from 5 to 10 feet in width up to 30 or 40 feet, they might possibly have to deal with more water to pump and more lead to draw than in many other localities, as the size of the vein was extraordinary. He knew from his own experience as an engineer that those large lodes drained the surrounding rock for a very considerable distance. He knew that considered by the miner as a very good sign; but what he meant to convey was, that if they met with more than a fair quantity of water, it should not be considered as a ground for discouragement, as possibly that supply would be attended with an abundance of metal. But probably their mining engineer, who was in attendance, would afford them better information. All he could say was, he had devoted a great many years in following his vocations to the study of the geological mining qualities of the district, and he thought no ground could be selected to secure fortunes, and generally to advance the interests of mining, than the district in which their property was situated. The Manchester and Milford Railway would pass through their grant, and it was not to the company's interests in disclosing other lodes for any other purpose, they could make from two to three miles of this railway upon moderate terms—at any rate, they could have the benefit of any discovery that might be made in opening the railway through their grounds; and when he explained that the line followed one of the great lodes through the grant for a considerable distance, it would be seen that the chances of discovering lead were not entirely hypothetical. The other advantages of the railway would be, that it would put them in communication with the lead-smelting establishments, both in North and South Wales, at a minimum expense of carriage, thus giving them the advantage of the very best lead markets, such as Chester, and other places on the north, and Swansea, and North Bristol, on the south—so that they could not be more favourably situated. With reference to the ground itself, it was in the centre of some very rich mines, and upon some of the best lodes, so that he anticipated at no very distant period they would enter upon a career of great success and profits, and thus entirely realise all their expectations.

Mr. EVANS asked if the company had been registered?—The SECRETARY replied in the affirmative, and handed the certificate of registration to the Chairman, who informed the meeting that everything was in due form.

Mr. MILESTED thought that the Cost-book Principle would do as well for them as that of limited liability.

The CHAIRMAN thought not; for he considered the limited liability principle was applicable to the mines out of the counties of Devon and Cornwall; and as the machinery of the Stannaries Court did not include such properties as North Hado, their affairs would fall under the terms of a partnership or private firm, which would be less satisfactory than a company so limited by law that any person was responsible only for the amount of his own shares.

Mr. TURNER enquired to what extent of time the first payment upon the shares would carry them, and what amount of calls it was contemplated would be necessary to meet the subsequent costs?—The SECRETARY said, that although he considered it somewhat premature at the present time to go into such a question, yet he might state that the amount of the first payment, if fully met, would carry on the business of the mine for at least twelve months. It would then be for the shareholders to consider in what way, and to what extent, they would subsequently contribute the funds, supposing that the mine was not making profits by that time.

A SHAREHOLDER enquired what time it was thought would be necessary to bring the mine into a remunerative condition?—Capt. FRANCIS said he should have made a statement as to his views upon the general affairs of the company, but he thought others might wish to ask him questions upon the subject, and therefore it would be better to subsequently answer them in a connected form.

Mr. WHORR had heard that Mr. MILESTED had recently visited the property, and V would be satisfactory to the meeting if that gentleman would favour them with his views as to the prospects of the company.

Mr. MILESTED stated that, in company with the landlord, secretary, engineer, mining agent, and others, he had recently visited the property, and was much delighted with the general position and prospects which it presented. He was much pleased with the country, and also with the generally flourishing condition of the mines. It was evident to the most uninitiated in mining that the lodes of the rich neighbouring properties directly intersected the North Hado sett. He saw some of the finest specimens of lead taken out of the rubbish of an ancient mine in the Cornish ground, which, added to other facts, strongly impressed him with the belief that the mines in this property could not fail to prove remunerative. The mines eastward and westward of North Hado, upon the same range of veins, were making thousands a-year profit. What he had seen had determined him to increase his interest, for he felt convinced some good discoveries would soon be made, which would materially enhance the value of their shares and of their property. Timber of the best description was abundant in the immediate neighbourhood of the mine, and he noticed there were fine streams of water passing through the company's ground.

Mr. SPARGO said he had for a long time been engaged in mining operations, and had done his best in promoting the welfare of those who had entrusted him with their interests. He certainly could say—and say it with the utmost confidence—that he had never met with a piece of ground that possessed so many favourable features. He had done his utmost in bringing the North Hado property before them unshackled by any drawbacks. The lease, or license, had been executed, the company had been legally incorporated, plans of the ground had been taken for the information of the shareholders, and men met to the better or more perfect carrying on of the works, the best engineers and men met to the service, the best statistics had been collected, the character of the surrounding mines, and their produce, and the whole evidence went to prove that no better selection could be made of a spot for mining investments. The grant to the company was extensive, fully two miles in length on the run of the lodes, which, where touched, were alive, and with lead ore almost to the surface—he could testify to that fact, for he had himself gone over the ground with the surface view of testing the accuracy of the reports which had been made; he had seen the veins laden with lead ore, which he considered to be the forerunners of great mines up to grass. He was about to again visit the property, and he would leave nothing undone that would conduce to the length of time it would take to sink into the ground, judging from the indications at surface, stated that although the indications were sufficiently strong to enable them to predict with great certainty that large masses of ore did exist below, it was impossible to say at what point the vertical strata changed into the real bodies of lead. From his long experience in Cardiganshire, he might state that he seldom found the paying quantities of lead to

be lying more than from 20 to 25 fms. below the surface, and the ordinary sinking or progress in the slate of this district was at the rate of about 3 fms. per month, so that he should estimate from six to eight months would, in all probability, bring them into profitable working. With reference to the character of the district, he might inform the meeting that he had been mining in Cardiganshire for the last 27 years, during which period he had been charged with the management of some of the most extensive mines in that county, and, taking it as a general rule, the whole had turned out successful. Loglan, one of the Llaburne Mines, was made profitable after an outlay of a few hundred pounds, and continued for a quarter of a century to pay 5000l. per annum profit; Froncoch, another of the Llaburne Mines, had been at work for ten years before he undertook the management of it, during which time there had been a loss of some thousands of pounds; but during the last 27 years it had made profits of from 7000l. to 10,000l. per annum. Loglan and Froncoch had succeeded much in the same way—in fact, all the mines in that district had been more than quadrupled in the outlay incurred in their development. About 20 years ago he opened the Goguan Silver-Lead Mine for an outlay of 5000l., which had since made as much as 9000l. a year profit. He assured from all that evidence that they would be equally successful in the North Hafod Mines. He had himself very carefully inspected this property, and he found that it contained lodes equal in size, crystallinity, and promise, to any mines in the Cardiganshire district, which fully satisfied him that the property would soon be in possession of a permanently profitable property. The drainage of the country was light—small lifts of pumps were usually not more than 6 in. in diameter, which were used for clearing the water from the deepest mines, and these were chiefly worked by means of water-power, or obtained from the Cardiganshire Canal. This was a very favourable circumstance, as it rendered the mines capable of being worked economically. None of the mines in that district, although they had been worked for hundreds of years, were yet brought down to the depth of the level of the sea, while in Cornwall the deepest workings were extended perpendicularly 300 fms. below that point. From that it was but a natural inference that the masses of metal in the Cardiganshire district formed in the Cambrian slate, and which deposits, after having continued to be productive from generation to generation, seemed still to be inexhaustible, inasmuch as it would take a vast number of years to follow down those formations of lead and silver-lead to a depth that had been attained in Cornwall and some other parts of the world, such as Mexico. The formation of the slate in this district was calculated by Murchison and others to comprise a thickness of 90,000 ft., and there was nothing known of any change in the character of this slate from the surface to where it joined the crystalline masses of the greenstone, and the probability was that there was no change in the productive agency of the metals in those rocks, so that there would be no falling off in the quality of the deposits of ore in depth. However that might be, the undertaking of North Hafod presented more favourable chances of producing abundance of metal than any mining concern in the country. After a most minute inspection of the property, he unhesitatingly affirmed that if they prosecuted their operations vigorously the results would answer their most sanguine expectations.

Mr. Spargo, in reply to a shareholder, said that mining was certainly a speculation, as were all other British and foreign enterprises. When a person had money to invest, it was his duty to lay it out to the best advantage, and with the least possible risk. He considered mines selected by competent persons, situated in good districts, and presenting the elements of success, on an average paid from 20 to 40 per cent. more than any other description of enterprise. In making that statement, he in no way referred to market operations, or the many concerns that were foisted upon the public, which were totally at variance with legitimate mining. So far as North Hafod was concerned, he had great pleasure in stating that the directors had from the commencement determined to work for dividends alone, and the prospects at the present time more than justified the expectation that everything that had been stated would be fully realised. The metallic products of this country had raised it to a pre-eminent position in the scale of nations, accelerating the progress of civilisation, and augmenting the wealth and individual comfort of a large proportion of our vast population. England stands unrivalled in commerce, industry, and the useful arts, and by the diffusion of the principles of a generous policy extends the benefit of her commerce to all the commercial world. The mines of Great Britain had from time immemorial been a source of employment to a vast proportion of her population, and furnished the articles which had been for ages the chief staple products of the country. Guided by the kindred studies of geology and chemistry, the industrial miner enters with confidence and untiring zeal upon the excavation of the hidden treasures which constitute the basis of our great national wealth; sensible that the products of our mines are of incalculable national importance, and that the unceasing improved application of metals yielded by them may be likened to a river, which, by extending its streams, irrigate, and thus proves a powerful auxiliary to the fertility of the soil. Had time permitted, he could have referred to the earliest intercourse with the continent of Europe, which from the arrival of our first accomplished and polished Phœnician visitors, had carried this country to its present unexampled maritime and commercial greatness; he would also have referred to the excellent qualities of mineral which this country had continued to produce for centuries; he would also have called attention to lead mines and mining, and the immense quantities of lead produced from the lead ore raised, and to the vast quantities of silver extracted from the silver-lead ore, which contributes to the refinement and luxuries of life, and manipulated into the most costly ornaments enabled our nobles and merchant princes to rival Lorenzo de Medici, the Magnificent, whose palatial Florentine residence was not the envy of the princes of the age. It must, then, never be said that mining had not the highest uses, or that it was an inferior calling—let miners learn to respect themselves, and he doubted not that he would live to see the business, or science, of mining respected as highly, if not higher, than any other. He feared he had tired them—(No, no)—but it was the interest he felt in mining, and the sympathy he entertained for the welfare of all miners, that made him so bold as to have encroached so far upon their time and attention, and for which he claimed their indulgence and pardon.

Mr. Milward considered that mining in Wales contrasted very favourably with mining in Cornwall, so far as economy was concerned. He noticed that the trials in Cardiganshire were chiefly accomplished by means of a small, light, and inexpensive water machinery; but in Cornwall he found all the works performed by steam machinery. He did not adduce that as a fault of Cornish mining, for such a state of things was absolutely necessary, in consequence of the great quantity of water in the lodes, and the scarcity of surface water, which, were it otherwise, would be applicable to driving machinery. The Cornish miner, therefore, was compelled to have recourse to the more expensive articles of coal and steam, which formed a very important item in increasing the costs. All he could say was that, after having spent a considerable amount of money in the Cornish mines, he had determined to try the less expensive mines of Cardiganshire, and from what he saw of the lodes in North Hafod, and the great facilities for deep adits and water machinery, he should feel disappointed if they did not lay open some of these great deposits of metal that had gone on from century to century, making the fortunes of the Cardiganshire mineholder. He was the more sanguine of North Hafod, as one of the very lodes they were working upon, at a short distance to the west, and at but a trifling depth from the surface, was making many thousands a year profit.

Capt. M. Francis, in reply to an enquiry from Capt. Wright, stated that he had seen the Froncoch lode full of ore for miles, and in width, the whole of it had been taken away, and the refuse from the dressing at the surface had been thrown in to fill up the excavations, which otherwise would have endangered the safety of the ground for a considerable distance on either side of the line of the vein.

A PROPRIETOR, who had recently visited Wales, corroborated the opinion that had been expressed by Mr. Milward with regard to the economical development of mines in that county, when compared with Cornwall. Why, the level of the land in Cornwall was generally so little above the level of the sea that it was seldom an adit could be obtained with more than a back of 30 fathoms, and, if, fortunately, the adit was deep enough to touch the level of the sea, and make a mine of it. In Cardiganshire he found the hills, or rather mountains, attained an elevation of between 2000 and 3000 ft. above the level of the sea, and the levels were driven at little cost, with such backs upon them that they rendered accessible portions of the sides, containing formations of lead, where a single discovery had been proved to be worth upwards of a quarter of a million sterling. That, he had understood, was not a single instance, and from what he had seen and heard, he felt convinced that, in many parts of Cardiganshire, by a comparatively small monthly outlay, large fortunes might be acquired—indeed, the whole cost of a mine in Wales would not exceed that of a few shares of a mine in Cornwall or Devon.

A special vote of thanks to the agents of the company to its present position, the usual compliment to the Chairman was accorded, when the proceedings terminated.

PENDEEN CONSOLS MINING COMPANY.

The ordinary two-monthly meeting of shareholders was held at the London Tavern, Bishopsgate-street, on Tuesday—Mr. W. HAWDEN in the chair.

The notice convening the meeting having been read, the report of the agents (Capt. W. Eddy and James Warren) was submitted. The statement of accounts for June and July showed a loss of 248l. 1s. 6d., and the general balance-sheet showed an excess of assets over liabilities of 1855l. 16s. 8d.

A letter from Mr. White, the purser, was then read, stating that a plan of the sett, as required, had been forwarded to the Crown Office, and that nothing now remained to be done but the signing of the leases. Mr. Warrington Smyth had written a letter to the Duchy and Crown Offices, urging them not to delay the leases. Mr. White believed that as soon as they returned their under-sea operations a fair profit would at once begin to be made. During the past two months the ground in the 118 fm. level had been harder, which had retarded them in reaching the ore ground gone down in the level above. Generally, the mine never looked better, so far as prospects are concerned, provided they can resume their under-sea workings, where the runs of ore have dipped.

The CHAIRMAN said the committee were unanimously of opinion that the general progress of the mine was very satisfactory. Before moving the usual resolution for the adoption of the report and accounts, he might inform the meeting that on Saturday last the committee received a letter from one of the shareholders (Mr. Thornthwaite), which was to the effect, that on Monday he went underground with Capt. Eddy, and that he was exceedingly gratified by the character of the stuff then being brought from the lower levels, it being a beautiful description of grey ore, which appeared to be very rich. The letter further stated that the mine was being worked in a miner-like way, and that as soon as the operations were resumed under the sea a rich return would be made to reward the proprietors for their patience and perseverance.

CHAIRMAN said they were anxiously looking for the signing of the leases, and he thought they had good reason for hoping they would soon be executed, and in the hands of the committee. It would be seen by the accounts that there was a deficiency had occurred to one of the boilers, that the replacing of the boiler alone had cost 250l., but in replacing the boiler in taking out the old one and the expense attending the putting in of the new boiler, had made a difference of that amount in their finances. That was a heavy item, he admitted, to be deducted from their accounts; but it was satisfactory to know the deficiency had not arisen from a falling off in the productivity of the mine, for in its development they had been delayed fully fourteen days out of the two months. Those circumstances explained, showed the real cause of the deficiency, and he was glad to be able to state that their mine looked as well, if not better, than ever it had yet done. Referring to the leases, he wished it to be distinctly understood that the delay in their execution had in no way arisen from any neglect on the part of the committee.

Mr. CURLIOW observed that the lodes of ore had been about 100 tons less—that was owing, he supposed, to the accident having interfered with the development of their property.—The SECRETARY said that was so, but, as the report stated, they had not yet reached the ore ground gone down in the level above. In answer to questions, he further stated that the terms of the lease had been agreed upon, and that all points had been settled with the Duchy; all they were now waiting for being the lease of that portion of the property which belongs to the Crown. The company had no outstanding liabilities, the only item against it being the amount for dues upon the ore that was sold in August, which, however, would be the amount for dues upon the ore sold in August.

Mr. CURLIOW enquired what would be the amount for dues upon the ore sold in August?—The SECRETARY replied 48l. 16s.

Mr. CURLIOW enquired if it were thought probable the value of the ore would increase as they explored under the sea?—The SECRETARY replied in the affirmative, and stated it was the bottom of the mine that was now producing the fine grey ore referred to by Mr. Thornthwaite.

Mr. BRADLEY thought the best evidence that could be adduced of the increasing value

of their ore was by comparing from time to time the amounts which their returns realised, from which it would be seen that their produce had continued to gradually improve in value.

The report and accounts having been received and adopted, the committee of management were re-elected, with thanks for past services.

The CHAIRMAN, on behalf of the committee, thanked the proprietors for their renewed expression of confidence, and assured them they were giving the affairs of the mine their undivided attention, which they would continue to do so long as they were entrusted with them. He hoped it would not be long before they declared a dividend—indeed, he believed it would have taken place before this had they resumed their under-sea operations at the time anticipated.—The proceedings then terminated.

CUMBERLAND BLACK LEAD MINING COMPANY.

A special meeting of shareholders was held at the offices of the company, on Thursday, Mr. LINDO in the chair.

Mr. A. TREGOVING (the manager) having read the advertisement from the Mining Journal convening the meeting.

The CHAIRMAN said the present had been called for the purpose of confirming, or otherwise, the resolution passed at the extraordinary general meeting of shareholders, held on July 23, which was to the effect that, taking into consideration the embarrassed position of the company, the meeting was of opinion that the company should be wound-up voluntarily under the Joint-Stock Companies Acts, and that the requisite steps be taken for that purpose. He would, therefore, move the confirmation of that and the other resolutions passed at the last meeting.

Mr. HUNTER objected to the adoption of that course, upon several grounds.

The CHAIRMAN thought if reasons were needed to show the necessity for winding-up, the reasons which had just been urged, and the statements just made, would really form a solid basis for the adoption of the resolution. It had been stated that the proceedings of the company from the beginning had been exceedingly improper. He (the Chairman) was not there to deny that statement, for no one felt the force of that complaint more than himself. He was one of those who had had nothing whatever to do with the formation of the company, having only been recently initiated, and very much, he assured the meeting, to his cost. But, at the same time, let him act like men of business, and consider the best way of settling rid of the difficulties which stood in their way. It was satisfactory to know that, whatever had been done, the intrinsic value of the property had not been—because it could not be—interfered with. Therefore, having that property, let them make the most of it, and make the best use of the shareholders for the ill that had been done. Allusion had very properly been made to the "free," and what some pleased to call "paying," shares. Now, there were no Articles of Association attached to that company, and therefore, they were regulated by the provisions of Table B, by which it was impossible for the directors, if they had acted properly, to have allowed any free shares whatever; it was equally clear, in point of law, that every man who signed the Memorandum of Association was liable for 5l. per share. He had stated that from the very onset; but, taking all circumstances into consideration, it appeared to him the best way would be to wind-up the company and to remodel it altogether upon an entirely different basis, which he hoped would result in returning to proprietors some compensation for the losses sustained.

Mr. PAGE seconded the proposition, confirming the resolutions passed at the last meeting.

Mr. CORNFIELD proposed an amendment, to the effect that the resolution be not confirmed, and that the company be not wound-up for the present; which, in the absence of a second, fell to the ground.

The original proposition was then put and carried, the dissentients being Mr. Cornfield and Mr. Hurst, the latter having entered a protest, which he requested should be registered.

A vote of thanks to the Chairman was passed, when the proceedings terminated.

CUDDRA MINING COMPANY.

A general meeting of shareholders was held at the company's offices, Austinfriars, on Thursday, Mr. LANKESHAIR in the chair.

Mr. W. CHARLES (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed. The accounts to the end of June showed:—

Balance last audit	£2134	3	1
Mine cost	1455	4	0
Merchants' bills	784	17	1
Sundry bills	49	12	1
Discount and interest	39	6	8
Call	£1800	0	0
Copper ore sold	522	0	5
Leaving debit balance	£2131	2	6
Less ores sold this day, say	200	0	0
Leaving debit balance	£1931	2	6

The report of the committee was read, which stated that since the last meeting the stamping-engine had been completed and set to work. It is working 24 heads of stamps, which are nearly double the weight of ordinary heads; and the effective duty performed thereby is nearly in ratio with the increased weight. It will be seen from your resident agent's report that the lode for 60 fathoms in length will average 7 feet wide, the whole of which will pay well for working; but that the last 6 fathoms are very rich, with a lode in the present 60 and 6 ft. wide, and worth 10 cwt. of black tin per 100 sacks, or 10 tons of stuff. If 2 cwt. will pay, as stated in the Inspector's report, you can easily judge how valuable must be the lode now in the end. Messrs. Puckey and Dunstan are of opinion that were opening out a valuable run of tin ground, and recommend that the 50 should be driven west over this rich lode, when we are likely, they think, to have the course of tin in that level also. The engine-shaft is completed at the 100, but the copper lode is still gossan, mixed with the black oxide of copper, which is a proof that we are not deep enough for that mineral; but the 100 west will be of great value to the mines, as the tin ground is dipping east at Walker's; and by extending this level west it will soon reach that tin ground, and give 40 fathoms of backs on this large lode, which, from present appearances in the 60, will be of immense value to the company. The dressing apparatus is so far complete as to proceed with dressing tin ore, and a calcining house has also been set at work; therefore, regular sales of tin will take place from this time, and your committee trust in such quantities as will be advantageous to the company. There can be no doubt that you possess a valuable mine; and your committee are of opinion that at the next quarterly meeting all will be highly satisfied with the development of the property. The machinery, which is paid for, is in perfect working order, and is of the best possible description; the surplus work of the engine, as the lode is reduced upwards of 250 ft. per month. In future, the ordinary costs of the mine only will have to be met, against which regular monthly returns will be made. A call will be necessary, and your committee trust that you will enable them to discharge the claims on the mine; and will, in conclusion, state that, should any further sum of money be wanted, the calls will not be one-third as heavy as hitherto; and that this property will be such as to satisfy and reward every adventurer.

The report of Capt. P. Puckey and E. Dunstan was read, as follows:—

Aug. 26.—Agreeably to request, we have this day carefully inspected the Cuddra Mine, and herewith beg to hand you our report. In the eastern part of the mine Tickel's engine-shaft is sunk to the 100, and that level driven east of the shaft about 9 fms. on the course of the lode; for above 4 fms. east of the shaft the lode produced a little black oxide of copper, but in the present and the lode is very poor. The 100 is driven west of the shaft by the side of the lode, and the lode has been cut through west, and we can not say anything as to its value; the lode in this part of the mine, from the 70 to the 90, a few fathoms east and west of the shaft, appears to have produced a small quantity of copper ore, and there are still three tribute pitches working at 13s. 4d. in 1l., but they will not leave much profit for the adventurers.—Tin Part: In the western part of the mine Walker's shaft is sunk a few feet below the 60; the lode at this level is very large, and exceedingly promising. For upwards of 40 fms. east of this shaft the lode is from 4 to 7 ft. wide, and will produce from 1½ to 2 cwt. of black tin to the 100 sacks, which will very well pay for working. The said level is driven west of the shaft 17 fathoms. The lode is also very large, and the last 4 fms. are driven through a splendid lode, worth 30l. per fm. the end is opening out a valuable piece of tin ground. There are four very important points in the mine, which we would recommend to be carried out with vigour—to continue driving the 60, west of Walker's shaft, through the tin ground, to at once commence driving the 50 also west of the shaft above the tin ground, where the chances of a good piece of tin ground are very great, the sinking of Walker's shaft, on the course of the lode, to open deeper levels, and likewise the driving of the 100, west of Tickel's shaft, to get under the run of tin ground that has gone down below the 60. By carrying out these points we have every reason to expect that a good mine will be the result. In a general way the mine is now laid open for a regular working; a great deal has been done in the upper levels, where the lode is large, and producing some tin, but our opinion is that the principal part to be realised will be in the western part of the mine, and in deeper levels, from the fact that the lodes in that part are much better in their character for producing tin. There is a very excellent lot of steam-engines and machinery on the mine, all working well—sufficient to prove the mine to a great extent. The dressing department is still incomplete, but the floors and racks are progressing satisfactorily, although there is pretty much work yet required to make it complete. The burning-house is now ready to burn tin.

The report of Capt. A. Cundy was then read, as follows:—

Aug. 27.—I beg to hand you my report of this mine for the general meeting. Tickel's Engine-shaft: The 100 has been driven west 6 fms. on the copper lode; it is about 1 ft. wide, composed of quartz, prill, and black ore, but nothing to value; we have not yet cut into the great lode in this level, but here we have a great and important object before us in driving the tin end, and we have a shaft cut nearly to the run of tin ground which is dipping east from Walker's. Whatever we discover in driving back this level will be very important, as we have 40 fathoms of backs over us; this will be of considerable value to the mine. I need not enter into details of the upper levels, but will at once come to the 60 fm. level. In this level we have a length of about 60 fms. of good tin ground; the lode will average about 7 feet wide for the whole length. In No. 1 stop the lode is 10 feet wide, and is worth 1½ cwt. of tin per 100 sacks. In No. 2 stop the lode is 7 feet wide, and is worth 1½ cwt. of tin per 100 sacks. In No. 3 stop the lode is 5 feet wide, and is worth 2 cwt. of tin per 100 sacks. In No. 4 stop, west of Walker's, the leader part of the lode is 2½ feet wide, and is worth 10 cwt. of tin per 100 sacks. The 60 end, west, on Walker's, is being driven by six men; the lode is 6 ft. wide, and is worth 10 cwt. of tin per 100 sacks. Walker's shaft is being sunk under the 60, by six men, and is down about 4 feet, sinking through the lode, which is full 2 fms. wide; we shall have slow work in sinking until we get through the lode, but when that is done we shall be able to sink as much as 30 fms. a year under the lode, which will throw open a vast deal of good mineral ground, and, I believe, to the satisfaction of every adventurer. The burning-house is complete, and we have commenced burning tin this day. All the machinery is in excellent order. We have employed 85 men underground and at surface, with 9 boys and 7 girls—of which 53 men are employed underground, 16 mechanics, and 16 labourers. We have 1 man and 10 boys and girls dressing tin, and of the labourers and 3 girls spalling tinstuff for the stamps. I recommend for our future operations to drive the 100 west by six men, with all possible speed; the 50 to be driven west of Walker's shaft, by six men; Walker's shaft to be sunk by nine men; and keep as many men as may be necessary stopping in the back of the 60; and the 60 to be driven west of Walker's, on the course of tin, by six men.

The CHAIRMAN said it would be seen from the report of Capt. Puckey and Dunstan, as well as from that of their own agent, Capt. Cundy, that they had a valuable run of tin ground in the 60, the lode averaging for 60 fms. in length about 7 ft. wide; 50 fms. of it was good paying work, and the other 10 fms. was exceedingly rich. The agents who had inspected the mine were of opinion that they were upon a valuable and permanent run of tin ground, and they recommended the driving of the 50 fm. level, believing the tin would be found rich up to that level. Walker's shaft would be sunk with all possible speed, and the end of the lode would be about eight or ten fathoms further level would be reached. From the appearance of the tin ground it was thought the tin would be found to be dipping east, so that by driving the 100 west, in the engine-shaft the tin ground would soon be reached. By bringing back that level large reserves would

be opened out, and seeing that the lode was three times the ordinary size of lodes, it must certainly produce three times the quantity of stuff, and as the ore has been found to be very good at that level, it was obvious that the advantage of having such a large lode was threefold, as it was obtained by driving one level instead of three. It was true the costs had been heavier than expected, but he (the Chairman) was glad to say that the costs would be lessened by nearly 300l. per month, and that with the prospect of making good returns. It would be necessary to make a call upon the present occasion to clear off the whole of the liabilities, by which they would stand well as a company with the public; but if any future calls should be required, as they would only have to meet the actual working costs of the mine, they would necessarily be of a very small amount. It was true, also, that the capital had been called up rather more rapidly than had been intended, but he trusted by the next meeting such results would be achieved as to make every shareholder perfectly satisfied with the position and prospects of the undertaking. For his own part, he fully believed that in Cuddra they possessed a very valuable property, which in a short time would be made patent to the world.

The SECRETARY, in answer to a question, stated that they had been delayed in their dressing some five or six weeks.

Mr. COXHEAD enquired what would be their future monthly cost?—The SECRETARY replied he was hoping that in future the labour cost would be about 300l., and the merchants' bills about 150l. per month—say 500l. If the cost should be increased the proprietors must rest assured that the additional amount was being applied to the development of productive ground. There could not be the shadow of a doubt that Cuddra would prove itself to be a valuable, permanently-paying, property. He need not refer to the several causes which had operated against the bringing about a successful issue before the present period; but he was glad to say that, notwithstanding their past drawbacks and discouragements, the more the ground was opened and its value tested, the more it became apparent that the favourable opinions which had been expressed by the most eminent authorities of the district were about to be fully confirmed.

Mr. SUTTON asked if they had yet sold any copper?—The SECRETARY said they had about 700l. worth. He thought from this time forward small sales of tin would be made. Mr. SUTTON enquired if it were calculated that regular returns of copper would be made?—The SECRETARY replied that there would from time to time be sold parcels of copper, but copper would be quite secondary to tin. From the nature of the lodes they were evidently in the gossan, and they could not expect a confirmed bunch of copper till they got under the gossan. The whole of the surface works were finished, and the dressing apparatus would soon be complete, so that the future working cost would be exclusively confined to the development of the mine, against which there would be returns.

The CHAIRMAN, in answer to a question, stated that the committee were of opinion that a call of 8s. per share should be made, which would clear off the whole of the liabilities, and leave the mine entirely free from debt. If the shareholders decided upon adopting that course, their commercial position would be improved, and the undertaking would be much more favourably regarded by the general public.

The report having been received and adopted, a call of 8s. per share was made. The committee of management were then re-elected, with the addition of Mr. Sutton. A vote of thanks to the Chairman was passed, when the proceedings terminated.

Mining Correspondence.

BRITISH MINES.

ABERDEVEY.—A. Ede: The ground in the cross-cut in the 42 is hard, and troublesome for driving. The slope in the back of the 32, north of winze, on main lode, is looking well, and producing fully 1½ ton per fm. The slope south of the before-named winze is without alteration, and producing 1 ton per fm. We have set a slope in the 12 north, which is also producing 1 ton per fm. The dressing and other departments are in good working order.

ALFRED CONSOLS.—S. Uren, T. Hosking, Aug. 28: The 160, driving east of Davey's engine-shaft, on the main lode, produces good stones of ore, but not to value. The lode in the 150, driving east of the above shaft, is 4 ft. wide, spotted with ore. The north part of the main lode, driving east of Roberts's shaft, in the 140, is 1 ft. wide, worth 10l. per fm. The south part of the main lode in the 130, east of the above shaft, is 2 ft. wide, producing stones of ore. The main lode in the 120, driving east of said shaft, is 4 ft. wide, worth 15l. per fm. No. 1 winze, in bottom of the 140, is worth 25l. per fm. Roberts's shaft is worth 15l. per fm. Hosking's slope is worth 12l. per fm. Floyd's slope is worth 25l. per fm. Richards's slope is worth 15l. per fm. We sampled (and assayed) 267 tons of average quality. No other change to notice.

ALT-Y-CRIB.—J. Hughes, Aug. 24: Shallow, or No. 1 Adit: The slope in the back of this level is worked out to surface, or to meet the old men's workings from surface, and the men here were put to sink a winze under the level to prove the lode downwards, and throw air down to No. 2, which is within a few fathoms of coming under here, where the air is bad. There is a branch of ore in the winze about 3 in. wide. They have only just commenced adit No. 2. The first bunch of ore by the winze is from 5 to 6 fathoms long, and will produce 7 or 8 cwt. per fm. The end of this level has been driving in some ore ground for the last 5 or 6 fms., but not rich; along the bottom of the level it was pretty good, but the back of the same was not so good; but we have put men to open or stop the back, and it is improving as we go up, and likely to continue; if so, we shall have a good slope here. It is worth about 5 cwt. to the fathom.—Adit No. 3: There is a fine looking lode here, but we have seen no lead here yet.—Deep Adit: There is no alteration here since last report. We are short of rails for this end and others.

ASHBURTON UNITED.—Wm. Edwards, Aug. 28: The lode in the 67 end east has improved; except this there is no change of importance to notice.

BEDFORD CONSOLS.—Capt. Mitchell, Aug. 29: In the middle adit level the men are driving by the side of the No. 1 south lode. All other points continue much the same as when last reported on.

BROOKLAND (Cumberland).—Wm. Dixon, Aug. 29: The workings at Gill's stage continue the same as was last reported—in small, detached bunches or sops of wad, and has produced 14 lbs. of black lead. The workings on waddy pipe also are very promising in appearance. The grand pipe is much the same.

BOTTLE HILL.—J. Eddy, Aug. 26: Friday last was our setting-day; we then set two tutwork bargains and seven tribute pitches.—Buckingham-house Lode: The 24, east of Buckingham-house shaft, to six men: price for driving and wheeling their stuff, 4l. per fm. The lode in the present end is about 2 ft. wide, worth about 10l. per fm. I expect shortly to meet with a further improvement here. We have about 4 fms. further to drive before we get under the shoot of tin gone down in the level above. We expect to look very promising in about three weeks from this time. We asked a bargain to clear the shallow adit, on south lode, to three men, at 15s. per fm. We have about 20 fms. further to clear to get into the old workings. I hope to accomplish this in about two months from this time. I hope shortly after this is completed to lay open some good tribute ground.—Tribute set on Main Lode: George Gully's pitch, west of old whim-shaft, to four men, at 13s. 4d. in 1l. W. Pascoe's pitch, 10 fms. east and 10 fms. west of Vigor's shaft, to four men, at 13s. 4d. in 1l. J. Tomlin's pitch, 20 fms. east of Josiah's shaft, to four men, at 13s. 4d. in 1l.—Blanchard's Lode: Henry Jones's pitch, in back of the 24, west of cross-course, to five men, at 13s. 4d. in 1l. George Ince's pitch, in back of the 24, east of cross-course, to two men, at 13s. 4d. in 1l. Roberts's Lode: James Farley's pitch, in bottom and back of the 12, to three men, at 13s. 4d. in 1l. I hope in a month from this time to sell 9 tons of tributaries tin, and if we have anything like a supply of water I hope to sell in about six weeks after from tributaries and adventurers about 9 tons more. The ground in two or three of our pitches has very much improved within this day or two, and I am happy to say the mine altogether is looking better.

BROWN FLOYD.—J. Lester, Aug. 27: North Lode: In cross-cutting this lode from the 40 the water still continues to burst out, but is subsiding.

Aug. 29.—We are now through the hard part of the lode, and have got into large veins of tin ore, and that black stuff similar to what we had on the upper side of the carbonate of lead in the 17 fm. level. We cannot say much more of it, for the lode at this point has run in and filled the forebreast. I think it will be well to turn and drive west upon the lode from the point where it carries the best lead: this can be driven at about 70s. per fm. Thompson's cross-cut seems to be very near the south lode, for the joints are all filled with ore. The winze below and the rise above the 17 are progressing satisfactorily.

BRYNAILL.—J. Roach, Aug. 29: The 25 cross-cut is now in a mixture of clay-slate and spar, but the lode is not yet intersected. No other alteration since my last report.

BULLER AND BASSET UNITED.—W. Pascoe, Aug. 29: The 80 west continues to look very promising, with some good spots of yellow ore intermixed with the muddle.

CAMBORNE CONSOLS.—W. Roberts, Aug. 28: In the 50 east, on the counter, no lode taken down since last reported. In the 38 west the lode is 1 ft. wide, composed of spar, muddle, and occasional stones of ore.

CARADON CONSOLS.—W. Rich, Aug. 27: The ground in the cross-cut north and south is still very favourable for driving, the present price being 40s. per fm. There is a little more water than usual coming from the end of the 54 north, which looks as if there is a lode ahead. We have met with the cross-course in the winze sinking below the 54, which has disordered the lode, and made it small water, its influence, the ground, however, is easier for working, and will greatly facilitate our operations here, in order to ventilate the 66. The lode in the shaft is regular and well defined, and is composed of kindly peach, fluor-spar, and spots of ore; the granite near the lode looks very congenial for the production of copper.

CARN CAMBORNE.—Wm. Bishop, Jun., Aug. 28: In the 13, the eastern adit and winze cross-cuts we are pushing on with all speed to cut the south or new lode; at the latter one we are expecting daily to cut the lode, and the end is still letting out water, tintured all over with copper. The western end in the adit level, on the south lode, has fallen off this day or two in value, but seems likely to improve again, now worth 12l. per fathom. We are now through the hard part of the lode, and have got into large veins of tin ore, and that black stuff similar to what we had on the upper side of the carbonate of lead in the 17 fm. level. We cannot say much more of it, for the lode at this point has run in and filled the forebreast. I think it will be well to turn and drive west upon the lode from the point where it carries the best lead: this can be driven at about 70s. per fm. Thompson's cross-cut seems to be very near the south lode, for the joints are all filled with ore. The winze below and the rise above the 17 are progressing satisfactorily.

CATHEDRAL.—J. Webb, Aug. 28: I have cleared up a shaft about 13 fms. to north of engine-shaft, and found in the adit three very kindly lodes. If we had air to work, I would recommend them all being driven on at once. But for want of air, we have been able to drive but on one lode, east of cross-course, 2 feet wide—saving work.

CENTRAL MINERA.—W. Davies, Aug. 28: The new shaft is going down very satisfactorily, and the water does not increase. The cross-cut is very hard and sparry, and lets out a little water. The slopes in the back of the 55 are poorer. We have commenced driving for the great north cross, but the old shaft is much out of repair, and it will take a few days to put all right. We hope to have 10 tons of ore ready by the end of the week.

CHARLOTTE UNITED.—Richard Kendall, John Pemberton, August 24: The engine-shaft is within 3 feet of the 80 fathom level; no lode has been taken down since our last report. The lode in the 70 fathom level, east of the engine-shaft, is improving, yielding about 1 ton of ore per fathom; the lode in the 70 fathom level, west of the engine-shaft, is much the same as last reported—no ore to value. The lode in the 60, west of the engine-shaft, is worth 8l. 8s. per fm.; the lode in the 60, east of the engine-shaft, is a heavy by a cross-course or slide, but we expect to cut it again in a day or two; before we came to the cross-course the lode yielded some good stones of copper ore. The lode in the 50, east of the engine-shaft, is not so productive as last reported, but from the present appearances we are of opinion it will make good again shortly. In the cross-cut driving south in the 50 we have intersected a lode about 2 ft. wide, composed of white spar, white iron, and some stones of good copper ore;

COLLACOMBE.—S. Mitchell, Aug. 27: The ore ground in the 105, 96, and 94 fathoms level is being stopped with all possible speed. Since your last general meeting there has been no change in this line of notice.

BROOKHAVEN.—H. Thomas, Aug. 26: The western trial shaft is going down in the same channel of ground as last reported. The shaft is thoroughly timbered and secured, which will enable us to go to the 20 without much more expense in timber. When this shaft reaches the depth of 20 fms., I would recommend to intersect the great champion lode on the south, and the gossan lode on the north; both of the lodes are very near the trial shaft. When this is done I doubt not but your property will be greatly enhanced in value. In the 40 west, on south lode, I have directed the men to cross-cut through it. I was always under the impression that a large portion of it was slanting to the north of the driftage; in this I am not disappointed. Since last Wednesday we have cut through a deal of muddle, mixed with yellow ore, embedded in micaceous schist and friable quartz. This is a very promising lode, and in depth I am confident it will turn out to be rich and lasting; there is every element contained in it to ensure success. In order for the future ventilation of and under the 60 I would recommend a winze to be sunk on this lode, under the 40, to communicate with the engine-shaft at the 60; if this is not done operations will be retarded for want of air under the level alluded to; besides, I have every reason to believe the lode will greatly improve in sinking on its course. In sinking the winze no additional expense will be incurred. The rise in the back of the 40 fms. level, and the winze sinking under the 20 fms. level will, I expect, be noted before the next monthly setting. Anything that can be done is doing for carrying on the general work of the mine.

CWM EFFIN.—Aug. 27: The lode in the 45, going west of engine-shaft, is 5 feet wide, composed of clay-slate, quartz, and branches of lead ore disseminated throughout, a very kindly end; the lode in the same level, east of boundary, is 4 ft. wide, poor. The lode in the stopes over the back of this level, 10 fms. east of boundary, yields $\frac{1}{2}$ ton of ore per fathom. The lode in the stopes over the back of the same level, 90 fms. east of cross-cut, yields from 10 to 12 cwt. of lead ore per fathom. The stopes over the back of the same level, 35 fms. east of cross-cut, has improved, now worth 1 ton per fathom. The lode in the 32, going east of boundary, yields $\frac{1}{4}$ ton of ore per fathom; this is the most eastern level in the mine, which looks promising. The lode in the stopes over the back of this level, 5 fms. east of boundary, is worth 15 cwt. per fathom. The lode in the stopes over the back of same level, 60 fms. east of cross-cut, yields $\frac{1}{2}$ ton per fathom. The lode in the stopes over the back of the same level, 32 fms. east of cross-cut, is worth 1 ton per fathom. The 20, going east, has very much improved; the lode is 2 yards wide, worth full 2 tons of ore per fathom. The lode in stopes over the back of this level, 100 fms. east of cross-cut, is 5 ft. wide, worth 15 cwt. of ore per fathom. In the stopes over the back of same level, 90 fms. east of cross-cut, the lode is worth 1 ton of ore per fathom. The lode in the stopes over the back of same level yields from 10 to 12 cwt. per fathom. We shall sample, on this day week, 55 tons of lead ore.

DALE.—R. Nines, Aug. 26: The Pipe vein is about the same value as when I last wrote, worth 1800, per fm. During the past week the new shaft has been sunk 6 feet, and is now down from surface 264 fms.

DEEP LEVEL.—T. P. Thomas, W. T. Harris, Aug. 29: We are extending the level north on the gravel bed, but have not yet got into new ground; we are finding lead ore, but nothing to what we anticipate upon getting into fresh ground. Lankensher's level is extended into the hill about 15 fathoms; we have got through the bed of shale, and are now in chart, which is of a very promising character, and producing nice strings of ore of lead ore—we are daily expecting a discovery here. We have cleared out the Lake shaft to a depth of 10 fathoms, and we are today we shall find the swallow; we shall be able to say more about this in our next report, but from its situation we may expect to make important discoveries here shortly.

DEVON AND CORNWALL UNITED.—T. Neill, Aug. 27: Middle Level: The end, driving east of cross-cut, on the south lode, is looking very promising, and worth $\frac{1}{2}$ ton of copper ore per fm. We have no other change to notice.

DEVON NEW COPPER.—P. Hawke, Aug. 28: The end west at the 78 has undergone a slight change; the character of the lode has somewhat improved—more prismatic and the water issues more freely. The leader portion of the lode east, at the 78, is at present about 2 feet wide; it is for this width composed of prismatic, crystalline muddle, and a portion of yellow copper ore; but the yield of copper is not so plentiful. Every effort is being made to complete the engine-shaft to the 90 fathoms at the earliest moment.

DULTA.—J. Martyn, Aug. 27: But's lode is split into several branches, but all producing tin, and letting out plenty of water. I think we are getting near Richards's lode, coming in from the kilaas. I have set the back of the spar lode to be stopped at 107, per fathom. Dyer's lode is over 5 ft. wide, very promising for tin, and still improving as we go east. Shimm's lode is 4 ft. wide, and yielding good work for tin. We are working the steam-stamps, and producing some good tin; and I think when we have more stamp-heads at work we shall be enabled to pay cost, and return good profit.

DURLO.—R. James, R. Martyn, Aug. 28: In the 48, driving west of the Durlo engine-shaft, the lode is improved, laying open tribute ground that will work at 6s. 6d. in 12. This is the only change since our last report.

EAGLEBROOK.—H. Teak, Aug. 28: Since my last, I am glad to say, we have had an excellent course of lead ore in sinking the winze from the 10 to the 20, and which is still continuing. The lode in driving the 20 has most promising appearance, and is all but a course of ore, whilst the lode in driving the 30 west has also a more promising appearance than for some time past. The dressing and surface operations are proceeding satisfactorily.

EAST BEAM.—J. Webb, Jun., Aug. 29: The engine-shaft is down 94 fms.; the ground continues favourable for whirling, and congenial for tin. The water is increasing, but is well kept by the horse-wheel. The engine and pitwork will be ready by the time that we shall require it.

EAST CARN BREA.—T. Glanville, Aug. 28: In the 50, east of the cross-cut, the lode is yielding 1 ton of ore per fm. In the 40 east the lode is producing 2 tons of ore per fm. In the 40 west the lode is producing 4 tons of ore per fm. The other parts of the mine are without alteration. We have sampled to-day 247 tons of copper ore.

EAST DEVON GREAT CONSOLS.—T. Richards, Aug. 27: Fair progress is being made in sinking the engine-shaft. In the 40 west the lode continues of a very promising character. In the cross-cut south the ground continues very congenial for mineral. **EAST QUIN'S LAKE AND SOUTH BEDFORD.**—Wm. G. Gard, Aug. 29: The lode in the 35 east is a very fine course of ore, now worth 5 tons, or 300, per fm. No. 2 winze, in the same level, has improved, and is now worth 2 tons per fm. No. 3 winze is worth 3 tons per fm. The cross-cut south is still in favourable ground for progress. In the 24 east no lode has been taken down since last reported. In the deep adit we continue to drive by the side of the lode. The part of the lode carried in Gard's shaft is looking very promising, and the ground favourable. The cross-cut east of Gard's shaft, in the shallow adit, is still in elvan. We shall sample about 125 tons of ore—say, 60 tons of best and 65 tons of seconds ore.

EAST ROSEVAINE.—J. James, Aug. 24: The lode in the 55 west is 14 in. wide, worth 120, per fm. The lode in the 55 east is 15 in. wide, worth 140, per fathom. The lode in both these levels is looking well, and is a great improvement on anything seen in the upper levels at this point. In the 43 east the lode is from 6 to 8 in. wide, producing good stones of ore. In the 43 west the lode is 1 ft. wide, opening tribute ground. In the winze sinking below the 43 the lode is 15 in. wide, worth 220, per fm. The water is rather quick for sinking, but, from the copious flow of water from the 55 west, we think we shall shortly drain the ground. At King's shaft, sinking below the 27, the ground is favourable; lode unproductive. In the 22 cross-cut north we have cut a small branch of muddle and copper ore; we shall, in the next month, cut the lode further north. We shall sample, on Tuesday next, about 66 tons of good copper ore.

EAST TREFFIS.—J. Pope, Aug. 29: At Smith's engine-shaft, sinking below the 58, the lode is 20 inches wide, chiefly quartz. In the 34, east of cross-cut, on Trellawny lode, the lode is 2 feet wide, yielding stones of copper ore, but not enough to value. In the 22, west of the cross-course, on Smith's lode, the lode is small and unproductive. In Trellawny flat-road shaft, sinking below the deep adit, the lode is 3 feet wide, producing stones of yellow copper ore.

EAST WHEAL FALMOUTH.—W. Hancock, Aug. 27: We have cleared up the old shaft to the east of the new engine-shaft about 5 fms. below the surface, and to have; we cannot go any deeper for the present, the water being too deep to cut through it; labour, and so on, as seen the former lode, which was taken away all the lode, where, I have no doubt, there is a great quantity of tin. I have now put two of the men and two boys to drive the deep adit east of the new engine-shaft, on the main lode, where I hope soon to meet with a hollow or loose lode that will unwater the eastern ground above the adit level; the adit cross-cut is in advance of the latter shaft towards the new south lode 9 ft.; ground good for progress.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennett, Aug. 24: The lode in the engine-shaft is about 3 ft. wide, producing good work for tin, and 3 tons of ore to the fathom, worth full 270, per fm. The lode in the eastern end of the shaft has considerably improved, and it is looking better than for some time past. The lode is now 35 east, and remains as before. The air-shaft is holed, which we are hurrying on with all dispatch. The lode in the 35 west is nearly 7 ft. wide, producing good stones of ore, and excellent work for tin, worth for the latter full 70, per fm—a promising lode, and where we are expecting a change, as we find some strong yellow ore intermixed. The lode in the 25 east is about 2 ft. wide, of peach, quartz, and gossan, yielding a little tin, and letting out a quantity of water, altogether a kindly lode. The lode in the 25 west is split; the south branch is 1 ft. wide, of quartz, with black ore and muddle. We have placed three extra men in the air-shaft, in order to facilitate the hoing.

EXMOUTH.—J. P. Nicholls, J. Nicholls, Aug. 28: The 72 north has been driven by the side of the lode for the last 7 fms.; it is now scientifically advanced to cut through it, and rise against the winze in the bottom of the 60, which is down 6 fathoms, and in which there is a good lode, but owing to the influx of water we were unable to sink it, or cut through the lode, therefore cannot report its actual value; however, we are of opinion the rise will soon drain it, when every means will be used to form the communication as early as possible, as it will lay open a valuable piece of ground. The stopes in back of the 72 north is now worth 6 cwt. of lead ore per fm. The 60 north is easier for driving, and the lode kindly, although poor. The same remarks apply to the 50 north. The 40 south is easy for development, and the lode at present producing some good stones of blende, with good indications for improvement before long. The cross-cut west from the 20 south is in favourable ground, but has not intersected any lode as yet. All other parts of the mine are without any change to notice since last report.

FAWLEY AND PAR UNITED.—J. Treddinck, Aug. 24: Since the last general meeting we have completed the building of the engine-house, bob-pit, stack, and smith's shop, and are getting on with the boiler-house. The engineer will commence to have in the engine as soon as possible. The cross-cut is driven north from Palmer's shaft, 35 fms., and cut several branches producing tin. The engine-shaft is now down 7 fms. 3 ft. below the adit, still sinking by 12 men. We have two horses to draw the water and stuff, one by day, the other by night. The ground continues favourable. We intend sinking until we cut Colman's lode, which, where seen in the adit, was large and well defined, composed of peach, prismatic tin, capel, and produced good work for tin. When we cut the above-named lode our best counter would be to drive east and west on its course, and at the same time extend a cross-cut north to intersect Palmer's lode, and get under the shoot of tin we had in the adit. By doing so we may reasonably expect to open out good tin ground. There are four other large and promising lodes further south, underlying north towards the shaft; the distance between the lodes is about 10 fms. There are two splendid cross-courses near the shaft which will give every facility for driving north and south to intersect the different lodes. When we reach the 16 or 20 fm. level, as it may be, we shall then have from 20 to 30 fms. of backs on the lode. It is my opinion we shall then be in a position to raise a quantity of tin-ores, and as the lode is large and promising, and the mine being in a good district, it is my candid opinion it is a good speculation, and should not, if these points are fairly and properly carried out, the shareholders will be rewarded for their outlay.

FURDON.—J. Hampton, J. P. Daw, Aug. 29: In the 21 we have met with another, and we think the last crossing going west, as the level above is thoroughly drained, and the winze in the bottom of the 11 west is dry; there is ore disseminated throughout the end, which will doubtless improve in going forth, but from the effect of the slide we cannot at this position of the end put a value on the ore. The 11, east and west, are still insufficiently valuable to about pay the cost of the mine. We intend to-morrow near 30 tons, and can sample enough to pay cost at the end of next month should the directors prefer one month's notice.

GAWTON COPPER.—G. Rowe, August 24: The lode in the 36 west is not yet cut through, but continues about $\frac{1}{2}$ ft. wide, being composed principally of spar, muddle, and yellow copper ore; in fact, I consider it a very kindly lode. For the last few days the men have been engaged in taking down a portion which is standing by the driftage, in order to draw the water, which is still flowing very freely from the lode. The rise

and stopes in the back of the same level are yielding ore to the amount of 2 tons per fm. The winze in the back of the 30 is producing 2 tons of good quality ore per fm. All other points of operation are without change.

GONAMENA.—B. Pascoe, W. George, Jun., Aug. 28: Having holed the winze from the 80 to the 90, we have resumed the driving east in the 90, where the lode is 1 foot wide, yielding occasional stones of copper ore. We have set a stopes in the bottom of this level, which will produce $\frac{1}{4}$ ton of ore per fathom. In the 90 west no change has taken place since our last report. We have taken the men from the 90 west, on Fitzgerald's lode, to put a stopes over the back, where the lode is worth 1 ton of ore per fm. In the 80 the lode has a little improved since our last, and is now producing some saving work. There is no alteration in the 70 to notice. The stopes in the back of this level is now set to 10s. in 11. The stopes below the 58 is poor, and suspended. We have four men employed in a stopes in back of the 58, where the lode will produce 1 ton of ore per fm. Fair progress is being made in the 53 cross-cut south.

GREAT BRIGGAN.—T. Trelease, Aug. 26: Trial shaft is now holed to the shallow adit level, and the men are engaged cutting pit; the lode in the bottom of the shaft is worth 120, per fm. We have also commenced to drive the shallow adit level, east of said shaft, where the north or leading part of the lode is 18 in. wide, worth from 120 to 140, per fm., with an improving appearance. The stopes in the back of the 10, west of said shaft, is worth 30, per fm. No lode has yet been seen in the cross-cut south of Oats's shaft.

GREAT CHINIS.—W. Woodcock, Aug. 29: The ground in the new shaft continues favourable for sinking. The shaft is now down 2 fathoms 2 feet below the 110. The lode in the 100 west is without any alteration in its character during the week; it is upwards of 7 ft. wide, composed of peach and a congenial spar, spotted throughout with ore, the leader on the north part being still upwards of 1 ft. wide, good saving work. We have gone through a large floor of spar in the 100 cross-cut, which has let down a portion of the water, but as the water is still issuing from the end I think we have another branch or lode near. In the 90 cross-cut we have cut a branch about 5 inches wide, composed of muddle, peach, and ore, chiefly of the former—a very kindly branch, which is very likely to belong to the middle lode. The tribute pitches throughout the mine are without alteration.

GREAT ONSLOW CONSOLS.—G. Rickard, Aug. 27: The lode in the 107 east, which has recently been disordered, appears to be more settled. In the 122 west the lode has a leader about 2 ft. wide, composed of peach, can, muddle, and sugar-spar, and is spotted with ore throughout. There is no change to notice for the last week in the 122 east; the ground continues very favourable for being driven through.

GREAT RETALLACK.—W. H. Reynolds, August 28: The ground in the shaft is favourable for sinking, and we shall be down to the 45 fm. level in three or four days more sinking. In the 35 east we are still driving in a large deposit of blende; the 35 west is in kilaas by the side of the lode. We shall begin to open the 45 very quickly; we hope to be able to do so very soon.

GREAT SOUTH TOLGUS.—J. Daw, Aug. 28: The lode in the 112, west of Lyle's shaft, is 2 feet wide, producing stones of copper ore, and still letting out a quantity of water. The lode in the 90 west is $\frac{1}{2}$ ft. wide—a promising lode. The 90 east, on north lode, is 9 in. wide, producing a little ore. The lode in the 60, west of Lyle's shaft, is $\frac{1}{2}$ ft. wide, producing $\frac{1}{4}$ ton of ore per fathom. The lode in the 40 west is 2 ft. wide, producing 1 ton of ore per fathom.

GREAT WHEAL ALFRED.—W. Bugelhole, W. Arthur, Aug. 28: Moon's winze is communicated with the rise in back of the 220 fm. level: the lode east and west of the winze is poor, and so is the 220 level. The south part of the lode in the 210 west is 4 ft. wide, worth 100, per fm.; the main part of the lode is still standing, and we purpose stripping it down when we reach the point of the horse. The lode in No. 1 stopes is worth 160, per fm.; No. 2, 170; No. 3, 140; No. 4, 240; No. 5, 200; No. 6, 160; No. 7, 230; and No. 8 is worth 120, per fm. We sampled, yesterday, 440 tons of average quality copper ore, which will give a good profit for the ensuing month.

GREAT WHEAL BUSY.—John Delbridge, J. Petherick, J. Bryant, E. Richards, Aug. 24: In the 110 east the lode is about 5 ft. wide, yielding low-price tinstuff, with a little copper ore. At Oat's, in the 120, nothing has been done for the week; we are fixing a plunger in the 120, at Harvey's shaft. In No. 1 winze the lode is large, yielding 12 tons of ore per fm.; No. 2 winze, 10 tons; the 100 east, 17 tons; Levett's winze, 16 tons; King's lode, 8 tons; the 80 east, 5 tons; Mathew's rise, 10 tons; Mathew's shaft, 10 tons. In the 80 east the lode is disordered by an elvan. In the 100 west the lode is 3 feet wide, producing low-price stamping work. In the 90 fm. level, west of the rise, the lode is small. In Moyle's bottom the lode still continues to make to the north of the old workings, and is yielding 12 tons per fm. In the 80 rise, against King's shaft, the lode is very wide. In the 70 cross-cut the ground is favourable. At Boscawen's we are clearing the adits with all speed, and the sumpmen are engaged putting in barrens in the adit for fixing lifts, &c. We are fixing the engine with all speed, and putting in the boilers and balance-bob, and the works seem to progress satisfactorily.

GREAT WHEAL MARION.—H. Rickard, Aug. 28: The engine-shaft is down 10 fms. below the 40, and the ground equally as favourable for sinking as last week. The tribute department is still looking well. They weighed off on Wednesday last, at Calstock Quay, upwards of 3200, worth of coppery muddle, in addition to the 220 tons of copper we sold on Thursday last at the ticketing, which will be weighed off on Friday next. We sampled yesterday, on the mine, upwards of 140 tons of coppery muddle, and forwarded on samples to the different buyers for sale by tender on Tuesday; the crusher is answering admirably. As soon as we can complete our surface operations on the dressing-floors we shall add considerably to our monthly raising—the prospects underground warrant such. The engine is keeping the water at about four strokes per minute.

GREAT WHEAL VOR UNITED.—T. Gill, S. Harris, F. Francis, Aug. 27: In the 142, driving east of Metal engine-shaft, on the south part, the lode is 4 ft. wide, and worth 400, per fm. In the 142, driving east of Metal engine-shaft, on the north, the lode is about $\frac{1}{2}$ ft. wide, and worth 80, per fathom. In the 142, driving west of Metal engine-shaft, the lode is 4 feet wide, and worth about 450, per fm. In the 132, driving east of Metal engine-shaft, the lode is $\frac{1}{2}$ ft. wide, but poor at present, and looks promising to improve. In the 132, driving west of Metal engine-shaft, the lode is about 2 ft. wide, but poor for minerals. We have enlarged Levy's shaft about 3 fms. below the 90, and expect to complete it down to the 100 next month. We are making good progress in sinking Edward's shaft; it is now within 2 fms. as deep as the 50, driven west from Metal shaft; we shall complete it very soon. We have commenced to intersect the lodes. We are driving the 162, east of Metal shaft, for a pit, and then we shall cross-cut to intersect the lode, which we expect is very near the shaft, from indications seen in sinking. In the stopes in the bottom of the 132 the lode is about 3 ft. wide, and worth about 600, per fm. In the stopes in the back of the 132, east of Metal engine-shaft, the lode is about 2 ft. wide, and worth 300, per fathom. All our machinery throughout the mine is working very well.

GWYDYR PARK CONSOLS.—Capt. Smith, Aug. 29: We have taken down the lode in the deep adit again this week, which is improved since last reported; it has now made a split in the middle of the end, and worth 4 cwt. of lead ore per fathom; the lode goes down to the bottom of the end, and the adit level west at West Hawkmoor. It is not so good in the back. There is a little water rising from the end, and it is looking more promising than I have yet seen it. I hope we are approaching ore ground.

HAWKMOOR.—J. Richards, J. T. Phillips, Aug. 27: We have not had the water in fork since June last below the 30; during this time we have been thoroughly repairing the wheels, launders, pulleys, stands, &c., which may now be considered in good working order, and we purpose in a short time to commence forking the water, believing we shall not at the coming season have any scarcity, and that we shall be able to push forward the works without interruption. The objects we have in view principally are, as soon as the water is in fork, to push on the 50 west, 50 east, and 25, east of Rowe's rise, as the most important point in the mine, and the adit level west at West Hawkmoor. We have had from time to time in the deeper levels very good stones of copper ore, and, taking the size of the lode into account, we have every encouragement to prosecute the mine with energy, which is the best way to arrive at good results. During the dry weather we have been driving the 25, east of Rowe's rise, and we are glad to say, for the greater distance driven the lode has been a good course of ore, worth from 2 to 4 tons per fathom. We therefore, recommend the most effectual prosecution of the mine, especially westward, where you have such a long piece of ground quite unexplored, and where the chances of discovery are such as to justify the greatest possible energy in the prosecution of the work.

HINGTON DOWN CONSOLS.—T. Richards, Aug. 27: The lode in the 85 west is improved, now worth full 400, per fathom; the ground is become very easy for progress also, and I consider it altogether a very important change.

T. Richards, Aug. 28: The lode in the 85 west is further improved, and will now produce 100, worth of ore per fathom. The 100 west is very promising, and will produce about 150 tons of ore per fm. No change in any other part of the mine.

HOLMBUSH.—H. Pryor, Aug. 29: We are getting on very well in dressing for next sampling, which will be about 260 tons. The 160 west, on Holmbush lode, is improved; the lode is worth 500, per fathom.

KEDDY BRAY.—S. James, Aug. 24: The lode in the 75 east is 2 ft. wide, and will yield 1 ton of ore per fm. The lode in the 75 west is 10 ft. wide, and will yield 1 ton of ore per fm. The tribute department is looking a shade better than it has for some time past.—Eastern Mine: The lode in the 70 east is gradually improving; it is now from $\frac{1}{2}$ to 2 ft. wide, composed of quartz, floor-spar, muddle, and stones of copper ore, a very kindly lode indeed. The lode in the winze in the 60 east, which is sinking upwards of 20 fms. in advance of the 70, is worth 200, per fm. for the length of the winze (2 fathoms). In the 60 east end, during the past week, we have been cross-cutting south in search of a branch which went off in that direction some 7 or 8 fms. west of the present end. We are dressing ore to the next sampling with all possible dispatch. The prospects of this mine generally, I am happy to say, are looking more cheering than for some time past.

LADY BERTHA.—J. Metherell, Aug. 26: In the 53 east we are through the cross-course, but have not yet cut the lode. In the 53 west the ground is much the same, still driving by the side of the lode. In the 41 east the lode is 1 ft. wide, of muddle and capel. The stopes in back of the same level west are still worth 250, per fm. We have nothing new to advise you in the cross-cut in the 30 east. The stopes in the bottom of this level are worth 80, per fm. The stopes in back of the same level are worth full 200, per fathom. We have commenced a winze in the bottom of the same level west; the lode or part of which we are carrying is 3 ft. wide, worth 3 tons, or 120, per fm. The 10 fm. level is very much improved; the lode is over 4 ft. wide, of capel, quartz, muddle, and ore, worth of the latter $\frac{1}{2}$ ton, or full 100, per fm. and there is every indication of a further advance in value. The tribute department throughout the mine is looking well.

Capts. Harper and Metherell, Aug. 29: No change to inform you in either of the bottom levels. The 53 east is moderately easy for driving. In the 41 east the lode is at present small, carrying muddle and spots of ore. In the 30 east we are just now cross-cutting north, for the purpose of intersecting another portion of the lode, which we suppose is standing in that direction. The stopes in the bottom of this level are producing about the same as usual, worth from 60 to 80, per fathom. In the back of this level the lode continues to look well, composed of quartz, muddle, peach, and ore, worth of the latter 5 tons, or 200, per fathom. We have just commenced sinking a winze below the bottom of the 30 west, where the lode is about 3 ft. wide, composed of muddle, peach, and ore, worth of the latter 4 tons, or 160, per fm. In the 10 east the lode presents much the same appearance as when last reported on, composed of peach, quartz, muddle, and ore, worth of the latter 100, per fathom. The tribute department is yielding much as usual.

LOWER PARK.—W. Davies, Aug. 28: The 20 yard level in Padcock's shaft is still very easy to drive, and looks very promising for lead ore. The office shaft is going down very speedily; we are down 23 yards. The rest of the mine is without alteration.

MAULDEIN.—J. Tregay, Aug. 24: Old Mine: The 38, driving east on the north part of the lode, which is very large, composed of peach, spar, muddle, and occasional stones of copper ore. No alteration in any other part of the mine.

MOLLAND.—T. Bennett, Aug. 27: The lode in the 32 east has within the last day or two increased in size considerably, it being now 4 ft. wide, composed principally of white iron and a little quartz, producing stones of ore occasionally. The small vein of ore in the country, referred to in my last, has all appearance worn out, although the lode is hard and poor, yet I do not altogether dislike its appearance. The lode in the 20 east is small and unproductive at present; the country appears to be getting me edited as it gets off from the slide, and hence I think we may with reason infer that the lode will be fairly set to work. The stopes in the bottom of this level are producing $\frac{1}{2}$ ton of ore per fm. We had a slight breakage of the gear connected with the engine here on Monday, which is again put to rights, and the engine working very well.

NANTEOS AND PENRHU.—H. Boundy, W. Paull, Aug. 28: Eystumean: The lode in the 10 east is large, and yielding good stones of ore. In the 10 west the ground is very spare for driving; the north or most bearing part of the lode has not been taken down since last reported, but we hope to do so before the end of the month, when you

shall be acquainted with its value. The winze sinking below adit is yielding good stones of ore. The lode in the back of adit, east of No. 3 rise, is yielding 10 cwt. of ore per fm.; the stopes in back of ditto has become poor, and the men are not clear out an old working in the level above. The stopes west of No. 2 rise is yielding 9 cwt. of ore per fm.—Rowe's level: The men employed here are stopping down the north part of the lode, which is yielding some pretty good ore stuff. In Rowe's level west the lode is large, composed of muddle, blende, and lead ore; here we expect shortly to meet with a good piece of ore ground, which has been passed through in the upper levels. The stopes in the back of this level are yielding from 8 to 10 cwt. of ore per fathom.—Blich Gwyn: In the 30 east the lode is composed of muddle, blende, spar, and ore, yielding of the latter about 5 cwt. per fm., with a quantity of water coming therefrom; this piece of ground will, we have no doubt, eventually prove very remunerative. We have commenced to strip down the lode behind this end, which is yielding about 8 cwt. of ore per fm. Our tribute is without change to notice. The machinery is all in good order, and working well.

NANT-Y-IAGO.—Aug. 27: In the winze sinking under the adit level, east of engine-shaft, I cannot speak of any alteration in the character of the lode, it still yields small quantities of lead ore. In the stopes in the 10, west of rise, west of engine, the lode has been taken down, which I find to be rather unproductive for lead ore. In consequence of this I have now removed the men to open on the lode west from top of rise, where, judging from present appearances, there is every probability of our raising a fair quantity of ore. The lode in the deep adit level, east of cross-course, is very promising, but not to value. We have fixed poppet-heads, shelve, &c., and are getting on with the erection of the drawing machine as fast as possible.

NEW CROW HILL.—Our general operations are progressing very favourably. I have nothing positively new to communicate. In a few days we expect to find the north wall of the lode in the 35, but are not yet certain.

NEW TRELEIGH CONSOLS.—J. B. Browne, J. Prince, Aug. 23: There is no alteration in Carr's engine-shaft, sinking below the 80, sinking by six men and three boys, at 220, per fathom. The 80, east of Carr's engine-shaft, is driven by six men, at 140, per fathom; lode 5 ft. wide, worth for copper ore 3 tons per fathom, with every prospect of further improvement. The rise in the back of this level will produce 3 tons of ore per fathom; rising by six men, at 140, per fathom. A winze sinking below the 70 will produce 3 tons of ore per fathom; sinking by six men, at 110, per fathom. The 70, west of cross-cut, on Wheel Maria north lode, is not looking quite so well as when reported on last week—will produce 1 ton of ore per fathom; driving by four men, at 120, per fathom. There is no alteration in either of the cross-cuts driving south at the 70 or 80; the 70 is driving by four men, at 90, per fathom; the 80 by four men, at 100, per fathom. We have set two pitches this day; one in the back of the 80, east of Carr's engine-shaft, to four men, at 8s. in 11; the other in the back of the 70, on Wheel Maria north lode, to two men, at 8s. in 11.

NORTH BULLER.—J. B. Delbridge, Aug. 24: In the 78 west the lode is from 8 to 10 in. wide—good stones of tin; the ground is favourable for driving. At King's flat-road shaft the lode is from 14 to 18 in. wide, composed of quartz, muddle, and good stones of copper ore; the ground is good for sinking. In the 42, east of King's, the lode is from 16 to 18 in. wide, composed of muddle and spots of copper ore; the ground is favourable for driving. In the 42, west of King's, the lode is small. We think it is near the cross-course. The engine and rods are working well.

NORTH DOWNS.—F. Fryor, J. Grenfell, Aug. 28: Our prospects in this mine never were better. The ends at the 50 are worth in all more than 900, per fathom. We have commenced the rise referred to in our last, east of Bennett's stopes, from the 40 to the 30, and shall at once commence to drive at the 40 and the 30, which will open up good tribute ground. We are quite prepared for our sampling, although not due for four months, which will be, as well as I can calculate—adventurers' ore, 80 tons; tribute, at 16s. in 12, 130 tons; ditto, average at 9s. 8d.—290 tons, which will realise about 25000. In order to satisfy several enquiries, which must have emanated from parties desirous of doing an injury to this property, as regards the efficiency of our pumping-engine or otherwise, I have this day gone into the question with our engineer, and find it quite equal without any inconvenience to put us to the 130—that is, 70 fms. below our present level.

SOUTH FRANCES.—F. Fryor, Aug. 24: The engine-shaft is being sunk below the 28 fm. level, by six men and three boys, at 210, per fm. The lode is 3 ft. wide, composed of peach, capel, and muddle. This shaft will be down to the 38 against our next setting-day. Hunt's shaft is being pushed down with all possible speed, and we hope to reach a 70 fathom level by the end of next week, when we shall at once commence to case and divide down the shaft from the 60, and get ready for driving the 70. The lode in the shaft is $\frac{1}{2}$ ft. wide, and producing a little ore, but not enough to value. The lode in the 60 end, east of Hunt's shaft, is 2 ft. wide, composed of spar, quartz, and muddle, with sprigs of grey copper ore. No alteration to notice in the 60 end, west of Hunt's shaft, since last report.

NORTH JANE (Truro).—C. R. Webb, Aug. 27: The various rich discoveries of tin recently opened in this mine continue quite equal in value to that reported on last week, and everything is being prosecuted with the greatest energy.

NORTH LAXEY.—R. Rowe, Aug. 27: I have now returned from North Laxeay, and am unable to report any change of note since my last. The new shaft is down 3 fms. below the 27; the lode is about 3 ft. wide, chiefly soft gossan, and carrying two leaders of ore, together about 6 inches wide; to all appearance the shaft will now go down rapidly, and open out good ore ground.

NORTH MINERA.—T. P. Thomas, W. T. Harris, Aug. 29: We have resumed sinking the eastern shaft on Pugh's lode, and we hope soon to find a continuation of our present course of ore. We intend resuming also the engine-shaft, as it is desirable for us to get into the limestone stratification, as well as to open another level below our 35, and thereby enable us to prove the flat seen in the bottom of the cross-cut south. At Wilson's shaft we are driving north

At present appearances, the ore will not hold up much further, but if it holds to that belief

We have a great many tons to take away. The 30 east, on this lode, is still poor, but today we have a change of ground in the end, which I hope will lead to good results. In the shallow adit we have gone through what I call the lode; it is about 4 ft. wide, with two good broken courses on each wall; the composition is kilias and spar. The water is in fork to the 30 fm. level, and we have spare water enough for crushing. We shall have above 100 tons to sample on Thursday, and have on the mine from 20 to 30 tons towards the next sampling.

— R. Barkell, Aug. 27: South Lode: Thomas's stop, east of shaft, is worth 4½ tons per fathom. Rodda's stop is worth 4 tons per fm. The 30 west is producing 3 tons per fathom. No lode has been taken down in the 20 west during the week. The stop in back of the 30, on the north lode, will yield 3 tons per fm.; in driving east, in this level we have cut a stream of water, which we consider a favourable indication; the lode is 2 ft. wide, with stones of ore in it more than we have seen for some time past. No lode has been taken down in the 20 east since last report. We have above 100 tons to sample on Thursday next, the 29th inst., and have on the mine about 30 tons towards the next sampling.

— R. Barkell, Aug. 27: Thomas's stop is further improved, now worth 5 tons per fathom. All other places the same as when I wrote on Saturday, with the exception of the 30 east, on the north lode, where we have cut a stream of water, and the lode is looking a little more promising.

GOVERNMENT MINE INSPECTION.

THE EAST SCOTLAND DISTRICT.—Mr. Williams reports that it is satisfactory to notice that there is a decrease upon the aggregate number of accidents, as compared with the preceding year, amounting to upwards of 16 per cent., whilst the quantity of coal raised is much about the same—5,100,000 tons. There was only one explosion of fire-damp, which caused the death of one person; this was at the Omoa Ironworks, by a drawer having gone into an abandoned unfenced working with a naked lamp, and ignited a small quantity of inflammable gas; he was but slightly burned, and was enabled to walk home, but died in 10 days after. Of the accidents from falls of roof and coal 16 happened near to the face of the working (within what is termed the limits, which are more particularly under the care of the workmen themselves); the other 4 occurred on the draw-road, which is under the care of the colliery owners or their overmen. This description of accidents cannot be well guarded against by the underground managers and overmen; therefore, great precaution is required on the part of the workmen, for in addition to the slips, smooth backs, and joints that are visible, there are many that are only seen after the coal or roof has fallen. Of the seven shaft accidents, five were from causes beyond the control of the parties in charge, and the other two from hatches being pushed into the wrong division of the shaft while the cage was at the bottom. It has been his constant practice to recommend the adoption of self-acting guards for fencing the pit when the cage was not at the top.

THE WEST SCOTLAND DISTRICT.—Mr. Alexander considers that although the number of explosions is not in excess of the average, it is not quite satisfactory, and with few exceptions might have been averted. It would very much aid in preventing such accidents if the workmen were more determined to see the special rule required to be carried out by the fireman always observed, and in no case to go to their work until the fireman has completed his examination. In general the employer provides for the inspection of the works by the appointment of a fireman, and the special rule referring to the fireman's duty makes it incumbent upon him to examine the works before the workmen are allowed to enter them. There is only one safe way in which the fireman can carry out this important rule, and that is by preventing the workmen from leaving the pit-head till after he has completed his examination. When the arrangements are otherwise, Mr. Alexander finds that a certain laxity creeps in, the discipline relaxes; the workmen in a particular district supposed to be safe may occasionally be allowed to go into their working places before the fireman has completed his inspection, or what is the same thing, have not been checked for doing it; or the fireman may occasionally be behind his usual hour, and the workmen, impatient, may have entered in to their work, and this very reprehensible system may have been carried on for months or years, till some unfortunate morning, by the derangement of an air-course, stopping, or trap-door an explosive mixture is formed in a working place, an unprotected light is carried into it, and the poor unsuspecting victims are hurried into eternity. The engineer should be strictly prohibited from lowering any person into the works till after the fireman has made his examination, and intimated by signal that the workmen may be lowered to their work.

However hopeless the prevention of accidents from falls of coal and roof, Mr. Alexander considers that they may be checked, by carefully placing wood plentifully along the working places; it is principally there where falls take place, comparatively a small proportion happens in the formed roadway of the mine, and the average for the last five years does not exceed 5 per cent. The accidents in shafts have increased considerably, and exceed that of any former year; properly speaking a very small proportion of these can be termed accidents, and of the 15 lives lost nearly three-fourths were occasioned by the recklessness and neglect of the sufferers themselves, or by the inattention of the engineman. The miscellaneous accidents are not specially commented upon.

The safe and economical working of mines depends very much upon the ability of the person entrusted with the management, and any scheme, the object of which is to raise the standard or qualifications of underground managers, cannot but have a beneficial effect upon mining generally. Mr. Alexander concludes his report by referring to the successful examination in November last of the students at the Glasgow School of Mines, and the report of the committee of that institution; an abstract of which was published in the *Mining Journal* of Nov. 24.

CORNISH PUMPING-ENGINES.—The number of pumping-engines reported this month is 28. They have consumed 2231 tons of coal, and lifted 16·8 million tons of water 10 fms. high. The average duty of the whole is, therefore, 51,200,000 lbs. lifted 1 ft. high by the consumption of 112 lbs. of coal. At Dolcoath, they lift stem times, and some heads have been idle. At Carn Brea, a pair of rolls are worked to crush the samples.

From the proceedings of the CUDDRA meeting, on Thursday, which are detailed elsewhere, it will be seen that the development of this property is progressing satisfactorily—that the whole of the machinery is all but complete, and that from the present time returns will be made. By the report of Captains Puckey and Dunstan (of Par Consols) it appears that in the 60 fm. level they have a lode of an excellent character, and in addition to its richness being nearly three times as large as an ordinary lode, it is confidently expected that it will produce satisfactory results. There can be no doubt that the proprietors, by making a call more than sufficient to liquidate the claims against the company, have adopted the most politic course; and as the future costs will be materially reduced, and regular returns made, it may fairly be considered that the position of this undertaking will shortly be in every respect satisfactory to all connected with it.

GOLD EXTRACTION.—An invention, the object of which is to effect the separation of particles of gold from quartz and earths, by bringing mercury in contact therewith, has been provisionally specified by Mr. Sloper, C.E., of Hackney. The machinery consists of a hopper, opening at bottom into a cylinder, placed horizontally or nearly so, and fitted with agitators, secured to a vertical shaft, made to revolve in the hopper; inside the horizontal cylinder he places and causes to revolve an archimedean screw, and on the screw he fixes an agitator, which revolves with it. At the opposite end of the cylinder to that at which the hopper is placed he fits a vessel containing mercury, and which finds its way by a zigzag channel into the cylinder; he carries a pipe from the bottom of the mercury vessel, bends it upwards, and leads it into the hopper. The cylinder, mercury vessel, and hopper are charged with mercury, and the crushed ore, which is fed into the hopper, and made to pass through the mercury by the rotation of the screw. The waste after passing up through the zigzag pipe is carried off through openings provided for the purpose.

COATING METALS.—Messrs. Bayley and Mincher, of Birmingham, propose to coat metals or alloys with lead, or lead alloyed with copper. The sheet is scaled and pickled, and then removed to a second bath containing muriatic acid, lead, and arsenic. In coating copper, zinc, or alloys, the process would be the same, with the exception that the scaling is in different, aquafortis being used. Upon the same day the same gentlemen patented a process for effecting the same object by means of electricity.

TREATMENT OF CARBONACEOUS MATTERS.—Mr. W. M. Williams, of Handsworth, has patented an invention which consists in subjecting coal and other bituminous minerals and peat to destructive distillation under pressure, whereby the proportion of uncondensable gaseous hydrocarbons is diminished, and the proportion of paraffine oil and other solid and liquid hydrocarbons is increased, compared with the products obtained when no pressure is employed.

DRESSING STONE.—Mr. J. W. Graham, of Manchester, provisionally specified an invention, which consists in providing above the stone to be dressed a series of chisels, supported in suitable framing. The framing may be moved in any direction, and motion is given to the chisels by cranks. By this arrangement the stone may be cut, chipped, and dressed to any required form.

LUBRICATING COMPOUND.—Mr. C. N. Leroy, of Paris, proposes a compound of tallow, 252 parts; good lubricating oil, 353 parts; soda, 14 parts; potash, 12 parts; and water, 339 parts. The potash is first dissolved in the water, the soda is then introduced, and, finally, the oil and tallow are kneaded with it.

DRAWING PENCILS.—Mr. B. S. Cohen, whose lead pencils are so well and favourably known, has produced an article from pure Cumberland lead which will command itself, we think, to artists and draughtsmen everywhere. The lead, first reduced, in a large quantity, to an impalpable powder, is levigated and afterwards drawn, while in the plastic state, into long stems of a perfectly uniform density and texture, and which, so far from having the excessive brittleness of the ordinary lead, are almost as elastic as steel. The process of manufacture, aided by Mr. Cohen's great experience, produces a uniform article, of excellent colour and working qualities. —*The Engineer*.

GOVERNMENT SCHOOL OF MINES.

GOVERNMENT SCHOOL OF MINES.
DIRECTOR.
SIR RODERICK IMPEY MURCHISON, D.C.L., M.A., F.R.S., &c.
During the Session 1861-2, which will COMMENCE on the 7th October, the following COURSES OF LECTURES AND PRACTICAL DEMONSTRATIONS will be given:—
1. CHEMISTRY By A. W. HOPKINS, LL.D., F.R.S., &c.
2. METALLURGY By JOHN PRATT, M.A., F.R.S.
3. NATURAL HISTORY By T. H. HUXLEY, F.R.S.
4. MINERALOGY By WASHINGTON W. SMITH, M.A., F.R.S.
5. GEOLOGY By A. C. RAMSAY, F.R.S.
6. APPLIED MECHANICS By R. WILLIS, M.A., F.R.S.
7. PHYSICS By J. TYNDALL, F.R.S.
INSTRUCTION IN MECHANICAL DRAWING, by Mr. BROWN.
The fee for students desirous of becoming associates is £20 in one sum on entrance, or two annual payments of £10, exclusive of the laboratories.
Pupils are received in the Royal College of Chemistry (the Laboratory of the School), under the direction of Dr. Hofmann, and in the Metallurgical Laboratory, under the direction of Dr. Percy.
Tickets to separate courses of lectures are issued at £1 10s. and £3 each.
Officers in the Queen's service, Her Majesty's Consuls, acting mining agents and managers, may obtain tickets at reduced prices.
Certificated schoolmasters, pupil teachers, and others engaged in education, are also admitted to the lectures at reduced fees.
His Royal Highness the Prince of Wales has granted Two Exhibitions, and others have also been established.
For a prospectus and information, apply at the Museum of Practical Geology, Jermyn-street, London.
TRESHAM BEEKS, Registrar.

Miner's Association of Cornwall and Devonshire.
MINER'S ASSOCIATION OF CORNWALL AND DEVONSHIRE.—It is PARTICULARLY REQUESTED THAT ALL PAPERS OR COMMUNICATIONS intended to be brought before the Miner's Association at the annual meeting, appointed to be held at Falmouth, on the 18th of September, BE SENT BEFORE the 10th of SEPTEMBER, to the general honorary secretary, ROBERT HUNT, Portreath, near Redruth.—August 28, 1861.

CONTRACT FOR WELSH COAL.—The Directors of the SOUTH-EASTERN RAILWAY COMPANY are PREPARED TO RECEIVE TENDERS for the SUPPLY OF TEN THOUSAND TONS OF WELSH COAL, suitable for locomotive purposes, to be delivered on to the company's line at Reading. Tenders to be sent in on or before Wednesday, the 18th September next, endorsed "Tender for Coal," addressed to the undersigned.
S. SMILES, Secy.
London Bridge Terminus, August 23, 1861.

TENDERS FOR SUPPLY OF STONE.—The Health Committee of the Borough of Liverpool are willing to RECEIVE TENDERS for the SUPPLY OF STONE for PAVING and for CHANNELS, CURBS, and CROSSINGS, as also for FLAGGING the FOOTWAYS of the BOROUGH.
Full particulars as to the quantities likely to be required, and all other information, together with form of tender, may be obtained on application by letter to JAMES NEWLANDS, Esq., Borough Engineer, Public Office, 2, Cornhill-street, Liverpool. The tenders, sealed and endorsed "Tender for Stone," addressed Health Committee, to be delivered at the office of the Town Clerk, as under, on or before the 14th of Sept. next.
By order, WM. SHUTTLEWORTH, Town Clerk.
Public Office, Cornhill-street, Liverpool, August 5, 1861.

GREAT WHEAL MARTHA MINE (LIMITED).
STOKECLIMSLAND.—TENDERS will be RECEIVED at the above mine on or before the 10th Sept. next, for the SUPPLYING the following MATERIALS, viz.:—
CANDLES, at per dozen.
POWDER, at per ton.
SAFETY FUSE, at per 100 coils.
POWDER CANS, at per dozen.
RAPE OIL, at per gallon.
CORKING OIL, at per gallon.
RUSSIAN TALLOW, at per cwt.
ANTI-FRICTION GREASE, at per cwt.
NAILS, from 2 to 6 in., at per cwt.
TIMBER, at per load.
PICK, SLEDGE, and SHOVEL HILTS, at per dozen.
HEMP and PACKING, at per cwt.
ENGINE COALS, at per ton.
LEATHER, at per cwt.
SHOVELS, steel points, at per cwt.
Dated August, 1861.

WILDBERG GREAT CONSOLIDATED MINING COMPANY—PUBLIC SALE.—THE MINING PROPERTY, SMELTING WORKS, and other EXTENSIVE ESTABLISHMENTS, together with the whole of the TOOLS, PLANT, and APPLIANCES belonging to the above company, containing, with the grants attached to them, about 117 acres (Morgen) will be exposed at PUBLIC SALE to the highest bidder, at Cologne, on Monday, September 16, 1861, by the undersigned, Mr. Eglinger, at his office, No. 4, Richmond Strasse.
The mines, including a large number of consolidated concessions, are situated at Wildberg, about 10 German miles from Cologne, and within 4 miles (German) from a station on the railway opened between Deutz (Cologne) and Witten.
The company has expended more than £40,000 sterling in sinking shafts, in explorations, in the purchase of machinery, and in the erection of smelting works. The whole has been arranged with the most modern improvements, and is in excellent condition. The machinery on the mine is capable of draining it to an additional depth of at least 50 fms., whilst the smelting works are calculated to treat from 250 to 300 tons of lead ore per month. There is also ample house accommodation for the miners and workpeople situated on the property, and belonging to the company.
The silver-lead mines of Wildberg are among the most extensive and important in Germany, and have produced lead and silver to the value of £65,000 sterling during the three last years of working.
For further particulars, apply by letter, post paid—in London, to Messrs. PHILLIPS and DARLINGTON, at the company's office, No. 26, Gresham-street, E.C.; or to Messrs. AMORY, TRAVERS, and SMITH, Throgmorton-street, E.C.; and at Cologne, to the office of the undersigned, Mr. W. EGLINGER, Notary.
Cologne, August 12, 1861.

EDWARDS'S PATENT MINERAL ORE AND COAL WASHING MACHINE.—This is by far the MOST ECONOMICAL, both in cost and in working, as well as the MOST DURABLE and EFFICIENT MACHINE made. Complete machine, capable of washing from 25 to 50 tons per diem (according to quality), £75.—Full particulars, testimonials, &c., may be obtained from E. EDWARDS, Esq., C.E., Beaufort-buildings, Strand, London.

CREASE'S PATENT EXCAVATING MACHINERY, FOR SUPERSEDING THE SLOW AND EXPENSIVE USE OF MANUAL LABOUR IN SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., can now be supplied to the public. The machinery is guaranteed to drive through any rock at a minimum rate of 1 fm. per diem, and to sink shafts at the rate of 2 fms. in three days. Applications to be addressed to Mr. GEORGE T. CURTIS (sole agent), 17, Gracechurch-street, London, E.C.

By providing the power of calculating the time and cost to explore a certain depth and extent of ground, speculation in mining will be assimilated to commercial pursuits, with this unimpaired advantage, that when the grant has been once carefully and judiciously selected, and operations properly and systematically carried out for its development, there would be far less chance of unsatisfactory results than are met with by merchants and manufacturers in the usual routine of their business. As this important invention must beneficially interest the landowners, mine proprietors, merchants, and miners, we opine it will meet with immediate adoption. —*Mining Journal*.

IMPORTANT TO MINING.
SMYTH AND WASLEY'S MACHINERY FOR SPALLING AND SEPARATING THE ORE FROM THE STONE, &c.
A NEW AND USEFUL MACHINE, termed a "PREPARATOR," has recently been patented by Messrs. SMYTH and WASLEY, having for its objects the SPALLING and SEPARATING the ORE FROM THE STONE, and FORMING it into PROPER SIZES for PICKING, JIGGING, CRUSHING, &c., according to the nature and quality of the stuff. The construction is simple, and the machine can be erected in connection with other machinery, as driving-power, for about £15 per hammer. Two, three, four, or any other number of hammers may be had, as required. Four of from 4 to 5 cwt. each will break about 1000 tons per month.
This invention well deserves public notice, as it will decidedly effect an economy of 70 per cent. over manual labour, together with a great advantage in the dispatch of work, performing it far better than any other mode yet introduced; and several practical gentlemen who have seen it at work at the Coal Mawr Pool Mines fully corroborate the above statement.
The charge for patent right will be on the most advantageous terms. The largest mine in the kingdom may exercise its full use at £5 per month, and the charge to be reduced proportionately, according to the magnitude of the works; or the patent may be sold off to each mine, district, or county, as might be agreed on.
For further particulars, apply to Messrs. SMYTH and WASLEY, Coal Mawr Pool Mine, Llanrwst, North Wales. The model may be seen at the offices of GEO. I. SORELL, Esq., 25a, Bucklersbury, E.C., London.

IMPORTANT TO ROAD CONTRACTORS.
EFFICIENT AND ECONOMICAL STONE-BREAKING MACHINERY.
A NEW AND USEFUL MACHINE has recently been patented by Messrs. SMYTH and WASLEY, of the Coal Mawr Pool Mines, which is WELL ADAPTED for BREAKING STONES FOR THE ROAD; the construction being simple, and the machine being worked either by steam or water-power, and in connection with other machinery, as driving power. It can be erected at an outlay of £15 per hammer, any number being adapted, as might be required. Four hammers of 4 cwt. working daily are calculated to break 1000 tons of stone per month, and one man and one boy can serve it and also keep it clear.
This machine is well deserving public notice, as it will decidedly effect an economy of 70 per cent. over manual labour, and will prepare the stuff far better than by breaking with ordinary hammers, forming it into proper sizes for casting the roads; the first size being large pieces, to lay over the rough parts; and the second size being small pieces, which will form a smooth surface for the carriages, give excellent "bond," and prove far more durable than rough, lumpy stone-roads, which soon become like powder and wash off with rain. There is also material advantage in the dispatch of the work.
Several practical gentlemen who have seen the machinery at work at the Coal Mawr Pool Mines, near Llanrwst, North Wales, can corroborate the above statement. They highly approve of the stuff which was recently broken by this newly-invented machinery and laid over the road.
The charge for the patent right will be on the most advantageous terms, to be paid quarterly; or the right can be sold off to each county or district, as may be agreed upon.
For further particulars, apply to Messrs. SMYTH and WASLEY, Coal Mawr Pool Mine, Llanrwst, North Wales. The model may be seen at the offices of GEO. I. SORELL, Esq., 25a, Bucklersbury, E.C., London.

WALKER'S STAMPING MACHINES AND STEAM ENGINES, FOR REDUCING ALL KINDS OF MINERAL ORES TO IMPALPABLE POWDER, have been in use for these ten years in all the leading mines of the United Kingdom and the Colonies of the British Empire; as have also his PATENT PUMPS and WATER LIFTS, and for economy of working and durability cannot be equalled. MANUFACTORY, 17, COWPER STREET, CITY ROAD, LONDON.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—London, August 30, 1861.		
COFFER.		
Best selected.....p. ton	161 0 0	—
Tough cake.....	98 0 0	—
Wire.....	98 0 0	—
File.....	98 0 0	—
Burra Burra.....	98 0 0-98 10 0	—
Copiapu.....	96 0 0	—
Copper wire.....p. lb.	0 1 0½	—
ditto tubes.....	0 1 1	—
Sheeting & bolts.....	0 0 11	—
Bottoms.....	0 1 0	—
Old (Exchange).....	0 0 9½	—
IRON.		
Bars, Welsh, in London.....	6 5 0	—
ditto, to arrive.....	5 17 6	—
Nail rods.....	7 0 0	—
Stafford, in London.....	7 0 0	—
Bars ditto.....	7 10 0	—
Sheets, single.....	10 0 0	—
Pig, No. 1, in Wales.....	3 0 0-4 0 0	—
Refined metal, ditto.....	4 0 0-5 0 0	—
Bars, common, ditto.....	5 0 0	—
ditto, merchant, in Tees.....	6 10 0	—
ditto, railway, in Wales.....	5 0 0-5 2 6	—
ditto, Swed., in London.....	10 5 0-11 0 0	—
To arrive.....	10 10 0	—
Pig, No. 1, in Clyde.....	2 8 0-2 10 0	—
ditto, f.o.b. in Tees.....	—	—
ditto, f.o.b. in Tees.....	—	—
Staffordshire Forge Pig.....	3 10 0-3 12 6	—
Welsh Forge Pig.....	—	—
LEAD.		
English Pig.....	19 5 0-21 10 0	—
ditto sheet.....	20 10 0	—
ditto rod.....	22 0 0	—
ditto white.....	28 10 0-30 0 0	—
ditto patent shot.....	23 0 0-24 0 0	—
Spanish.....	18 10 0	—
At the works, 1s. to 1s. 6d. per box less.		
BRASS.		
Sheets.....	8½d.-9½d.	—
Wire.....	9½d.-	—
Tubes.....	10½d.-10¾d.	—
FOREIGN STEEL.		
Swedish, in kegs (rolled).....	—	—
(hammered).....	14 10 0	—
ditto, in faggots.....	15 10 0	—
English, Spring.....	18 0-28 0 0	—
Bessemer's, Engineers Tool.....	4 0 0	—
Spindle.....	30 0 0	—
QUICKSILVER.....	7 0 0 p. bottle	—
SILVER.		
Foreign.....	18 2-18 5 0	—
To arrive.....	18 5 0	—
ZINC.		
In sheets.....	24 0 0	—
TIN-PLATES.		
IC Charcoal, 1st qua. p. bx. 1.....	8 0-1 9 6	—
IX Ditto 1st quality.....	1 14 0-1 15 0	—
IC Ditto 2d quality.....	1 4 6-1 6 6	—
IX Ditto 2d quality.....	1 11 0-1 13 0	—
IC Coke.....	1 1 6-1 2 6	—
IX Ditto.....	1 7 6-1 9 0	—
Canada plates.....p. ton	12 10 0-13 0 0	—
In London; 30s. less at the works.	—	—
Yellow Metal Sheathing.....p. lb. 9d.-9½d.	—	—
Indian Charcoal Pigs.....	6 12 6-6 15 0	—
In London.....	—	—

REMARKS.—The metal market now begins to exhibit more activity than has been visible for some time past, and prices of most metals in consequence show a rising tendency. The reduction in the Bank rate of discount, and generally improved prospect of trade, will, we hope, render this activity permanent, but until the American trade re-opens, and Indian orders come over more freely, we cannot expect to do so large a trade as heretofore, when those markets were more flourishing.

COFFER.—In English descriptions a considerable demand has sprung up, more especially for unmanufactured, and considerable firmness is maintained by sellers. The standard of ores has again advanced 4½; this, taken in conjunction with the active demand, causes a rise in fixed price to be pretty confidently anticipated. Holders of foreign are extremely indisposed to sell at present prices. Burra Burra has changed hands during the week at 97½ to 98½, since which the market has stiffened, and sellers at these prices are very difficult to be met with. Kapunda quoted at 99½ to 100½; Copiapu, 95½ to 96½; Baltimore, 93½; Chilli, 88½ in Liverpool. Yellow metal in limited demand, at 8½d. to 9½d.

IRON.—Orders for railway bars continue to be exceedingly limited, and price remains without alteration—5½, f.o.b. at the works. Merchant bars are in pretty good demand, but owing to the slackness of railway work manufacturers are unable to obtain more than 6½, f.o.b. in London, or 5½ 2s. 6d. to 5½ 5s. at the works. Staffordshire descriptions remain without activity, and prices unaltered. Swedish bars not much enquired for just now; ordinary specifications on the spot 10½ 5s.; for arrival 10½ 10s. is asked. Scotch pigs have improved to the extent of 6d. to 9d. per ton during the week; mixed numbers to-day 5½s. 3d. to 5½s. 6d., and market rather quiet.

LEAD.—There is not much doing just now in this market, and makers are disinclined to accept any lower rates; the market, therefore, though very quiet, remains tolerably steady. English pig, 18½ 5s. for ordinary soft quality, to 21½ 5s. for WB brand. Sheets and shot not enquired for. Spanish pig, 18½ 10s.

SILVER.—This metal still shows a decidedly upward aspect, owing chiefly to the large amount of speculative business now doing; 17½ 15s., and even 18½, is reported to have been paid during the week for spot parcels, and 18½ to 18½ 2s. 6d. for arrival. To-day business to the extent of 275 tons has been done on the following terms—25 tons, at 18½, cash, to-day; 50 tons, 18½ 5s., cash, in 14 days; 100 tons, at 18½ 2s. 6d., cash, in 14 days; and 100 tons, at 18½ 5s., with long prompt.

ZINC unaltered, and sellers firm at 24½.

TIN.—On the 27th inst. smelters of English announced an advance of 3½ per ton, making present price for blocks and ingots 117½; bars, 118½; refined, 119½. These prices have since been very firmly maintained, and even higher rates are expected to be announced shortly. Foreign is in good request, and higher in price. Several parcels of fine Straits sold during the week at 116½ to 116½ 10s., and business done at the latter price to-day. Banca, 117½ to 118½.

TIN-PLATES not in request, and prices unaltered.
STEEL very dull of sale. It seems somewhat peculiar that while other metals, without exception, are looking up, steel remains totally neglected. Swedish keg quoted 14½ 10s.; faggot, 15½ 10s. English very quiet.

The Bank of England directors have again reduced the rate of discount, which now stands at 4 per cent., and business generally has been more brisk and favourable. Tin, as we expected, has advanced 3½ per ton; the standard of copper ore is up, lead is firmer, and blende getting into demand. Altogether, the prospects of the MINING MARKET have considerably improved; and since this improvement first set in a large amount of stock, especially in low-priced shares, has been gradually absorbed by the public; and as the dealers are short of stock, a great rise will probably take place in many shares, upon any improvement or discovery in the mines; and something of this sort is required to give stability and permanence to the improved tone of the market. During the week a large business has been transacted in West Seton, South Frances, East Caradon, Marke Valley, Cook's Kitchen, Great South Tolgas, East Grenville, Grenville, Wheel Seton, Wheel Kitty (Lelant), Stray Park, Wheel Unity, Wheel Hope, Carn Camborne, Hington Down, Great Retallack, East Carn Brea, Ludcott, South Caradon Wheel Hooper, Merilyn, West Polmar, Wheel Crebor, Wheel Arthur, North Treskerby, West Caradon, North Downs, North Minera, &c. South Frances have been in good request, advanced to 130, and leave off 122½ to 127½; the demand is owing to a discovery of tin, said to be worth 40s. per fathom, in the 134 west. Copper Hill also in demand at 95 to 100; there is said to be a fine lode going towards East Basset. West Seton have advanced to 320, 325. East Caradon firmer at 25½ to 26; the lode in the 80 east is worth 80s. per fm., west 20s. per fm. North Wheel Basset, 4½ to 4½; at the meeting, on Wednesday, the accounts showed a balance against the company of 578½ 13s. 6d., and a call of 3s. per share was made, and the report looks for an improvement in Grace's shaft, sinking under the 92. Pendean, 4½ to 4½; at the meeting the accounts showed a loss of 245½ 1s. 6d. on the two months' working, and a balance of 185½ 16s. 8d. in favour of the company. The best run of ore ground has dropped under the sea, where for some time past the company have been prevented working, owing to a dispute between the Duchy of Cornwall, the Crown, and the landowner. This, however, has been arranged, and leases both from the Duchy and the Crown are in the course of preparation; and when the works under the sea are resumed, the agents consider they could make a fair profit at once. Par Consols, 94 to 10. Great South Tolgas still in request at 3½ to 4½. North Downs, 4½ to 5; Devon Great Consols, 345 to 355. Stray Park advanced to 30, and leave off 26½ to 27½. South Carn Brea, 24 to 24½; Tamar Consols, 1½ to 1½; South Caradon, 295 to 305; West Basset, 16 to 18.

West Polmar shares have declined from 18s., 20s., to 17s. 6d., owing to a report pretty freely circulated that the first lode has been cut poor; this, however, we learn from the purser is not true, as there are about 3 fms. further to drive to cut the first lode, although one or two small branches have been met with, and the indications are favourable. It must be remembered there are four of the rich Polmar lodes to cut within a few fathoms of the first. Cook's Kitchen shares have been in good request, and have advanced to 27, 29. East Russell shares flatter, at 2½, 3½. West Caradon shares have been more dealt in, at 37½ to 39½. Wheel Mary Ann, 9 to 10; the mine sold 61 tons of silver-lead ore on the 24th, at 23½ 17s. 6d. per ton. East Grenville shares have been very firm, and in request, and leave off 39s. to 41s. The lode in the engine-shaft has improved to 27½ per fm., and the mine altogether is looking better.

Wheal Grenville shares remain at 32s. to 34s., and no material alteration in the mine. Alfred Consols, 1 to 1; Condurrow, 55 to 60; Dale, 14s. to 16s.; East Alfred, 29s. to 31s.; East Basset, 72 1/2 to 77 1/2. East Carn Brea shares have been more in demand, at 7 1/2 to 8, and the mine looking well. Wheal Unity shares have been very largely dealt in at 20s. and 22s. 6d., and leave off 19s. to 20s. On Thursday a report was spread in the market that the lode had been cut poor, and the "bears" set to work selling, but the shares rallied again. The report received from the agent on Thursday stated that the 75 cross-cut was in favourable ground for driving, and the lode expected to be cut daily. Above the adit he states the lode was very productive, and it is now in whole ground between that and the 75. Great Trevedee, 1 to 1; at the meeting, on Tuesday, a call of 1s. per share was made. The caunter lode is valued at 50s. to 60s. per fm. South Caradon Wheal Hooper, which reached 25s., have not been so firm during the last day or two, and leave off 17s. 6d. to 20s. Great Wheal Fortune, 11 1/2 to 12 1/2; Lady Bertha, 15s. to 17s. Marke Valley, 10 to 10 1/2; we understand the last sale of ore will realise over 2000s., and one or two important operations going on at the mine. Merilyn shares have advanced to 15s., 20s., in expectation of cutting the north and south lode, which at present comes off but slowly. New Treleigh, 30s. to 35s.; Long Rake, 14s. to 16s.; North Roskear, 15 to 17; North Trekerby, 22s. to 23s.

Bedmoor shares are at a mere nominal price of 3s. or 4s., and the mine nearly paying its way; the last statement of accounts, for the meeting on the 15th inst., which no one attended, showed liabilities over assets, 10s.; the present returns are 2 1/2 tons of tin per month, and one or two good prospects in progress. Old Tolgus United, 10 to 12; at the meeting a call of 1s. per share was made. Providence Mines shares in request at 35 to 37 1/2; at the meeting a dividend of 1s. per share was declared. Wheal Margaret, 35 to 40; at the meeting a dividend also of 1s. per share was declared. Carn Camborne shares have been in great request all the week at 1 1/2 to 1 3/4, leaving off 1 1/2 to 1 3/4; the lode in the western end, at adit, was valued in the report, on Thursday, at 12s. per fm., and two samples of the ore assayed produced, one 34, and the other 22 per cent. for copper; this lode is daily expected to be cut at the 13, below adit, which is an important point to watch. Wheal Basset, 82 1/2 to 87 1/2; Wheal Crebor, 10s. to 12s. Wheal Ludcott, 3 to 3 1/2; the last parcel of lead ore (80 tons) realised 17s. 6d. per ton, and there is a small parcel of silver now dressing. The prospects altogether are very encouraging. Hingston Down, 1 1/2 to 2; a great improvement has taken place in the 85 west, worth 50s. per fm. Great Retallack, 19s. to 21s.; in consequence of the rise in blende, and the demand for it, we understand the mine will now commence raising again, and is expected to return 500 tons per month, at a good profit. Kelly Bray, 15s. to 17s.; it appears the 60 has been skimming a bunch of ore, and the 70 will shortly get under it; a winze sinking below the 60 is worth 20s. per fathom. Tolcarne, 3 1/2 to 3 3/4; in cutting tip-plate the lode is equally as good as in the shaft, which looks well for holding down. Bryn Gwio, 24 to 26; Camborne Vean, 1 1/2 to 2; Herodsfoot, 35 to 36; Herward United, 9 1/2 to 10; North Minera, 27s. to 29s.; Rosewall Hill and Ransom United, 1 1/2 to 1 3/4; Rosewarne United, 20 1/2 to 21 1/2; Tincroft, 5 1/2 to 5 3/4; Tolvadden, 2 to 2 1/2; Trencrom, 1 1/2 to 1 3/4; West Frances, 12 to 14; Wheal Seton, 75 to 80.

On the Stock Exchange, a moderate amount of business has been transacted in Mining Shares during the week. The following prices were officially recorded in British Mining Shares:—East Caradon, 25 1/2, 25 3/4; Herodsfoot, 35; Margaret, 41; West Caradon, 39 1/2, 38 3/4, 37; North Downs, 4 1/2; Providence, 35 1/2, 36; South Carn Brea, 2 1/2; East Basset, 82; Great South Tolgus, 4, 3 1/2; Great Wheal Vor, 5; Par Consols, 9 1/2, 9 3/4; West Seton, 32 1/2. In Colonial Mining Shares the prices were:—Bon Accord, 1 1/2, 1 3/4; Port Phillip, 1; General, 2 1/2. In Foreign Mining Shares the prices were:—St. John del Rey, 36 1/2, 35 1/2, 36 1/2, 36; United Mexican, 5 1/2, 5 1/4, 5 1/2, 5 1/4, 5 1/2; Fortana, 2. The closing quotations for shares in new undertakings were:—Ocean Marine Insurance, 4 1/2, 5 1/2 prem.; Thames and Mersey Marine, 1/2, 1 prem.; Universal Marine Insurance, 1 1/2, 1 dis.; London and Provincial Marine, 1/2; Oriental and General Marine, 1/2, 1/2 prem.; Mercantile Fire, 3-16, 5-16 prem.; and Commercial Union Fire, 1/2, 1/2 prem. Colonial Government Securities continue in demand for investment.

The following are the Government Returns of the exports of articles identified with mining, the produce and manufacture of Great Britain, for the seven months ending July 31, 1861; and also as compared with the seven months ending July 31, 1860; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

DECLARED VALUE FOR THE SEVEN MONTHS ENDING JULY 31.			
	1860.	1861.	Decrease.
Coal and culm	£1,869,317	£2,106,226	—
Hardware and cutlery	2,013,203	1,895,317	£117,886
Machinery:—			
Steam-engines	£684,830	£788,130	—
Other sorts	1,309,313	1,994,143	—
Total	£5,876,563	£6,371,694	—
Metals:—Iron—Pig	£496,858	£416,734	—
Bar, bolt, rod	1,336,641	1,098,680	—
Railway	1,389,532	1,852,877	—
Wire	140,555	190,655	—
Cast	479,593	374,637	—
Wrought	1,856,907	5,300,087	—
Steel	497,125	406,454	90,671
Copper—Unwrought	448,949	269,470	—
Sheets	1,108,960	817,077	—
Wrought	119,286	1,672,195	—
Brass	105,719	133,941	—
Lead—Pig	307,238	228,048	—
Ore	97,992	82,425	—
Tin—Unwrought	205,371	195,094	—
Plates	894,561	1,099,539	—
Grand total	£14,956,751	£14,830,911	£125,840
Less increase—Coal and culm, 237,009s.; machinery, 375,908s.; iron, 398,236s. 1,011,153			
Total decrease			£125,840

At Redruth Ticking, on Thursday, 3150 tons of ore were sold, realising 16,448 18s. 6d. The particulars of the sale were—Average standard, 13 1/2 1/4; average produce, 6; average price per ton, 5 1/2 1/4 6d.; quantity of fine copper, 190 tons 13 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
July 25	3303	12 1/2 0	6 1/2	5 2 0	478 16
" 26	3778	12 2 0	6 1/2	5 4 10	78 10 0
" 27	3015	12 13 0	6 1/2	5 10 0	82 8 0
" 28	4535	12 5 4	6 1/2	5 15 0	84 13 6
" 29	3150	12 14 0	6 1/2	5 4 6	81 7 0

Compared with the sale of last week, the advance has been in the standard 1 1/2, and in the price per ton of ore about 5s. Compared with the corresponding sale of last month, the advance has been in the standard 5s. 2s., and in the price per ton of ore about 6s. 6d.

The following dividends have been declared during August:—

Mines.	Per share.	Amount.
West Wheal Seton	2 1/2	£7,200 0 0
Dolcoath	7 0	2,500 0 0
Wheal Clifford	3 10 0	1,750 0 0
Providence	1 0 0	1,120 0 0
Wheal Basset	2 0 0	1,024 0 0
Margaret	1 0 0	896 0 0
Leaburn	2 0 0	800 0 0
North Downs	0 2 6	750 0 0
Wheal Owles	5 0 0	400 0 0
East Daren	1 0 0	900 0 0
English and Australian	0 2 6	8,750 0 0
Lanishan	0 1 6	750 0 0
Total		£29,046 0 0

At Providence Mines meeting, on Wednesday, the accounts for May, June, and July showed—Balance last audit, 275s. 11d.; tin sold (deducting 217s. 19s. 7d. dues), 4764s. 8s. 2d.; sundries, 151s. 6d.=5055s. 3s. 7d.—Mine cost, 2737s. 9s. 3d.; materials, coals, &c., 972s. 6s.; leaving credit balance, 1851s. 4d. The profit on three months' working was 1800s. 5s. 6d. A dividend of 11s. (1s. per share) was declared, and 235s. 8s. 4d. carried to credit of next account. Wheal Margaret has declared a dividend of 1s. per share. The directors of the Hibernian Mine Company have declared the dividend for the six months ending June, of 1s. per share. At Wheal Jane meeting, on Tuesday, the accounts for May and June showed—Mine costs, merchants' bills, and sundries, 2224s. 13s. 4d.; bad debts and law costs in attempting to recover, 460s. 5s. 6d.=2684s. 19s. 9d.—Balance last audit, 5577s. 3s.; one sold, 2935s. 8s. 4d.; leaving debit balance, 947s. 12s. 1d. The loss on the 3 months' working was 191s. 9s. 8d. Capt. Bray and Giles reported that their tribute department was looking well for tin, and they calculated their returns for the next two months to be equal to the last. They have charged and paid in May and June about 450s. towards the new engine, erection, &c., and they had ore in the mine unsold—mundle, 230 tons; lead, 10 tons; blende, 20 tons, worth at a low estimate, 450s.

At the Cuddra Mine meeting, on Thursday (Mr. Lankshear in the chair), the accounts showed a debit balance of 1931s. A call of 8s. per share was made. Details in another column.

At Wheal Tremayne meeting, on Monday, the accounts for the three months ending June showed—Balance last audit, 491s. 17s.; labour cost, 1286s. 6s. 6d.; merchants' bills, 914s. 7s. 2d.=2692s. 10s. 8d.—Tin sold (deducting 90s. 1s. 11d. lord's dues), 1524s. 14s.; carriage, 101s. 2s. 10d.; arsenic sold, 60s.; leaving debit balance, 1096s. 13s. 10d. A call of 10s. per share was made. Capt. R. and J. Williams reported that the double skip-road would be completed to the 53 next week. The masons were impeded by want of hands. They had 85 men on tutwork and 20 on tribute. Their prospects were better, and they anticipated an increase in their sales of tin during the next three months.

At the Pendene Consols Mine meeting, on Tuesday (Mr. W. Bawden in the chair), the accounts showed a balance of assets over liabilities of 1855s. 16s. 8d.

At the North Hafod Mine meeting (Mr. Bush in the chair), it was stated that the property had been acquired for a term of 40 years at a royalty of 1-20th. Details in another column.

At Carn Galver Mine meeting, on Aug. 22, the accounts for the quarter ending June showed—Balance last audit, 254s. 3s. 3d.; mine cost, merchants' bills, and sundries, 1401s. 3s. 6d.=1655s. 11s. 9d.—Tin sold, 889s. 19s. 11d.; calls received, arrears, and sundries, 491s. 17s. 4d.; leaving debit balance, 733s. 15s. 6d. A call of 2s. per share was made. The agents reported favourably upon the prospects of the mine.

At the Old Tolgus United Mines meeting, on Tuesday (Mr. M. Pound in the chair), the accounts showed a debit balance of 761s. 6s. 3d. A call of 2s. per share was made. Details in another column.

At the Cumberland Black Lead Mine (special) meeting, on Thursday (Mr. Lindo in the chair), the resolution passed at the last meeting for winding-up the company was confirmed. Details in another column.

At the Rosewarne Consols Mine meeting, yesterday (Mr. J. Robertson in the chair), the accounts showed—Balance last audit, 203s. 12s.; mine cost, April, May, and June, 585s. 15s. 7d.; dues, 12s. 13s. 8d.; doctor's pence, 2s. 9s. 9d.; merchants' bills, 228s. 9s. 6d.=1032s. 19s. 6d.—Call, 492s. 17s. 10d.; ore sold, 228s. 6s. 10d.; leaving debit balance, 321s. 14s. 10d. A call of 2s. 6d. per share was made. The report of the agent was read, which appears in another column.

At the East Wheal Russell meeting, Monday (Mr. Hall in the chair), the accounts showed a balance of assets over liabilities of 484s. 9s. 1d. Details in another column.

At Wheal Harris meeting, on Thursday, the accounts to the end of June showed a credit balance of 99s. 18s. 4d. The agent reported that a cross-cut to the main lode was being driven; in doing which a branch of spar, mundle, and copper ore, had been intersected, underlying towards the lode, which is considered an important and favourable feature.

At Great Trevedee Mine special general meeting, on Tuesday, reports were submitted from Capt. James Follis, William Bryant, and Wm. Eustice. The altered position of the prospects in Trevedee was considered to do away with the necessity of increasing the number of shares in the mine, in order to raise capital more fully to develop the sett. Capt. James Follis reported that the caunter lode is totally different in its nature from anything they have seen in the mine, and they can speak of it as a great discovery; in fact, he has seldom seen richer work or a better lode. Capt. Bryant and Eustice reported that a caunter lode had been met with in the shaft, which is 5 fms. deep; this lode is 1 1/2 ft. wide, and worth 50s. per fm. for tin. They consider that in driving on this lode the east and west lode will be fallen in with—that which was worked on the eastern side of the valley, where a great deal of tin has been raised. The mine has recently been visited by the secretary, who has brought up specimens of the ore from the lode, and reports the machinery and works in good order.

LEADS, AUG. 29.—In mining shares there has been a moderate amount of business transacted, previous rates having been maintained. Shares in some of the progressive mines have been freely enquired after.—Brea Consols, 17s. to 20s.; Cornubia, 15s. to 18s.; Craven Moor, 3s. to 4s.; Merryfield, 5s. 6d. to 6s. 6d.; Nidderdale, par to pm.; North Hallenbeagle, 15s. to 25s.; Westleydale, 7s. to 8s.; Yorkshire, 10s. 6d. to 12s. 6d. We understand the Compressed Coal Company have accepted tenders and favourable contracts for their machinery, which will be commenced immediately.

COAL MARKET.—On Monday, 115 ships arrived, which caused a busy market, and a large sale was effected of all descriptions of coal, at previous prices. Best house coal, 18s. to 18s. 6d.; seconds, 15s. 6d. to 16s. 6d.; Hartley's, 15s. to 16s. 6d.; manufacturers', 12s. to 14s. 6d. per ton.—On Wednesday, 35 fresh ships came forward. The demand was very dull for coals generally, and the few sales completed barely supported Monday's prices for household sorts; Hartley's decidedly a shade lower.—On Friday, there were 22 arrivals. The price of first-class house coals was reduced 6d. per ton, which stimulated the demand, and a fair business was done. Hartley's and manufacturers' steady trade, at previous prices. Hetton's Wallsend, 18s.; Haswell's Wallsend, 17s. 6d.; South Hetton Wallsend, 18s.; Kipper Grange Wallsend, 16s. 6d.; Tees Wallsend, 17s. 6d.; South Durham Wallsend, 16s.; Hartley's, 15s. to 16s.; manufacturers', 12s. to 14s. 6d.: 22 cargoes unsold; 65 ships at sea.

CONTRACTS FOR COAL.—The South-Eastern Railway require the supply of 10,000 tons of Welsh Coal, for locomotive purposes.—Tenders are required for supplying the Royal Dockyard, Pembroke, with Smithery Coal, Newport Coal, Gas Coal, Coked Coal, and Coals for steam vessels: particulars of which are to be had of the captain superintendent.

THE MINERAL RESOURCES OF CANADA.—The importance of the mineral resources of Canada becomes each day better appreciated, and no doubt ere long British capital will be extensively employed in the development of the mines of that province. That copper and lead mines exist not only of a promising character, but which have been proved to be capable of yielding enormous quantities of ore of high percentage, is well known, and it now proves that the gold deposits are sufficiently ample to return large profits. We have already referred to the inducements held out by the Provincial Legislature for the introduction of capital into Canada, for the working of the valuable deposits of mineral proved by careful survey and examination to exist, and the last advice to hand state that an association—the Mining Agency Association—has been formed for affording English capitalists reliable information connected with the mineral locations which have attracted the largest amount of public attention in the province. The gold mines on the Chaudière are now being carefully explored, and no doubt is entertained that the explorers will be well repaid for their labour, the gold being very coarse, and the nuggets abundant. The Acton Copper Mines will probably be amongst the first introduced into the English market, and the Ramsay Lead Mine will, no doubt, shortly follow. The recent advice state, moreover, that several locations, fully equal to the Acton, have been discovered, and that if the flow of population to these localities equals that to Acton, where the number of inhabitants has increased ten-fold in three years, it may be anticipated that Canada will become a mining country equal in importance to any in the world. In the Mining Journal of Aug. 17 the mineral resources of the province were detailed, and it is thought by many intimately acquainted with the colony that the prospects are rather understated than otherwise. The Canadians, too, appear to entertain a confident opinion that all difficulties with regard to obtaining labour may be surmounted by the judicious employment of machinery for excavating and preparing the ore for market. The ore, it should be remembered, although so abundant, is obtained close to surface, no difficulty being experienced in removing the earth which covers it, and then working it in the same way as a slate quarry—by blasting the ore down, and breaking it.

MINERAL OIL IN CANADA.—From the latest advices from Canada it appears that she is likely to rival the United States in the richness of her mineral oil springs. The chief location at present explored is near the Wyoming station of the Great Western of Canada Railway, but the twelve miles between the wells and the railway will afford an ample field for the enterprise of the traction-engine companies, for the roads are extremely bad. Notwithstanding the difficulties of transit, however, there are 100 wells in full activity, and although the oil-bearing strata are somewhat deeper than in the United States, the pumping of the oil still leaves a very considerable profit. The mode of extraction employed is much the same as in the States. The fortunate owners of the soil beneath which the oil is found are reaping abundant harvests, and charging exorbitant rates for the privilege of working—60s. down, and one-third royalty, is a common charge. But the cost of the wells is very small, which to an extent compensates for this—sinking through the country being readily taken by contract at about 3s. per fathom, and drilling through the rock at 2s. 10s. A return in the shape of oil commences about a month after operations begin, and a capital of from 100s. to 200s. generally suffices. It is estimated that the cost of the oil, including all incidental expenses, does not exceed a halfpenny per gallon, which, of course, will leave a large margin for profit.

THE ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS.—At the ordinary monthly meeting of this association, held at the offices, Corporation-street, Manchester, on Tuesday (Mr. W. Fairbairn, C.E., F.R.S., President, in the chair), Mr. Fletcher, chief engineer, presented the report, from which the following are extracts:—During the ordinary visits of inspection the following defects have been discovered: Fracture; corrosion; 12; safety-valves out of order; 11; pressure-gauges ditto; 8; blow-off cocks ditto, 3 (1 dangerous); furnaces out of shape, 5 (2 dangerous); over pressure, 5; total, 53 (3 dangerous). Boilers without glass water-gauges, 59; without pressure-gauges, 3; without blow-off cocks, 6; without back pressure-valves, 33.—Three boiler explosions occurred during the month, from which loss of life resulted in every instance, as well as serious injury to several persons. Not one of these boilers, however, was under the inspection of the association. I have examined the remains of two, and found that both boilers were of the plain double-funnel cylindrical construction, such is in general use in Lancashire, and that explosion had resulted in each from collapse of one of the internal furnaces or fire tubes. The first of these boilers was 33 ft. long, the diameter of the shell being 7 ft. 9 in., and of the internal fire 3 ft. 2 in., while the thickness of the plate, both in the cylindrical part of the shell as well as in the internal fire, was 3/4 of an inch; this boiler had been worked at a pressure of 50 lbs. on the square inch, and at the time of the explosion was stated to have been working at upwards of 40 lbs.; its age being 10 or 11 years. The second boiler was 30 ft. long, the diameter of the shell being 7 ft. 6 in., that of the internal fire 3 ft., while the plates of the cylindrical part of the shell were 3-16 thick, and that of the internal fire 3/4 of an inch. The pressure at which this boiler was worked, and at which it was stated the

valves were blowing off at the time of the explosion, was 63 lbs. to the square inch, the boiler being about 8 years old. Neither of these boilers, even when new, were equal to the pressure at which they worked at the time of the explosion, and must, therefore, so some time have been worked in imminent danger. The internal fires were parallel throughout their entire length, and in neither case strengthened by angle iron hoops, T iron hoops, or any other means, while they were considerably coated with incrustation, which thus greatly increased the danger. All boilers of such proportions as the above are weaker in the flues than in the shell, and since the strengthening of these internal flues can be so readily accomplished by the hoops referred to above, while the results of collapse are so disastrous, it appears to me that it is running a most unwise hazard to neglect the simple precaution of strengthening the flues in this way, however slight the pressure may be. I may add that incrustation on internal flues should be considered not merely as a matter of inconvenience, but frequently of positive danger. Competent inspection would have detected the dangerous condition of these boilers, and prevented the disastrous results; while for want of such inspection many boilers may be in a similar condition, quite unknown to their owners.

RAILWAY CAPITAL.—The annual return made to the Board of Trade shows that at the end of the year 1860, of the total capital raised by the railway companies of the United Kingdom—namely, £48,130,127l.—54 1/2 per cent. had been raised by ordinary shares, 19 1/2 per cent. by preference shares, 2 1/2 per cent. by debenture stock, and 25 1/2 per cent. by loans; the respective amounts being £26,791,867l., £7,578,840l., £1,256,574l., and £12,583,546l. Four years previously, at the end of 1856, the total capital raised was less by 40,535,341l., and the proportions of its constituent parts differed a little from the present; the preference stock and loans then formed 1 per cent. less of the total capital.

RAILWAY CALLS.—The amount falling due in Sept. is 493,564l.—making a total for the nine months of the present year, 3,797,479l.

RAILWAY WHEELS.—In the construction of railway carriage and locomotive engine wheels, it is of the greatest importance that the tyre should be securely fastened to the body of the wheel, and that it should be weakened as little as possible by the operation of fastening. By the ordinary mode of construction, these objects are imperfectly obtained by putting on the tyre at a red heat, and allowing it to shrink, or contract, upon the wheel. Holes are then bored through the tyre, and the spoke, or inner rim, and bolts are screwed or rivetted through the whole. The shrinkage as thus practised involves great risk of breaking the tyre, and its strength is liable to be seriously impaired by overstraining. The bolt-holes are also admitted to be a considerable source of weakness. To remedy these evils, Mr. Joseph Bond, of Tow Law, Darlington, has invented an improved method of constructing the wheels, and of forming their parts whereby they may be put together when cold, thus avoiding the risk attendant on shrinking, and whereby the use of bolts through the face of the tyre may be dispensed with. To effect this he uses a tyre of peculiar form, the inner periphery being inclined or bevelled from both edges towards the centre. The heads of the spokes, or the rim, or the disc of the wheel, as the case may be, he makes with an incline, or bevel, on the outer periphery to suit the bevel of the tyre, and he makes a loose ring, or disc, of a corresponding bevelled form, which is to be fitted into a suitable recess in the spoke-rim. These are then to be brought tightly together by screws, or other mechanical means, and the bevelled surfaces being pressed inwardly in a wedge-like manner against the tyre will firmly bind the whole together.

LEAD ORES.			
Mines.	Tons.	Price per ton.	Purchasers.
Wheal Mary Ann	23	17 6	Stock & Co.
ditto	37	8 2 6	R. Mitchell & Son.
Sold on the 28th August.			
Laxey	100	15 4 0	Sims, Williams, & Co.
Sold on the 29th August.			
Westminster	80	11 8 6	Walker, Parker, & Co.
Mount Pleasant	85	11 17 0	ditto
Hendre Ucha	13	11 11 0	ditto
Pool Park	15	11 10 0	A. Courage and Co.
Roman Gravel	20	11 17 0	ditto

BLACK TIN.			
Mines.	Tons c. q. lbs.	Price per ton.	Amount.
Pedra-an-drea	12 8 1 2	—	£799 16 3—Blasco Co.
North Roskear	6 14 2 21	63 0 0	424 5 3—Trefliffe.
Sold on the 3d and 24th August.			
Wendron Cons. ..	37 18 2 17	—	2454 5 7—Chydour, Blasco

COPPER ORES.			
Sold at LIVERPOOL, by Mr. J. Pittam Campbell, on August 24.			
Lot 1 (ex Syrian)	Tons.	Price per ton.	Purchasers.
Lot 2 (ex Jane Lewis)	81	£3 1 6	J. Keys & Son.
3 ditto	324	5 10 6	Newman, Keates, & Co.
ditto	284	4 13 6	J. Radley, Jun.

COPPER ORES.			
Sampled Aug. 14, and sold at Tabb's Hotel, Redruth, Aug. 29.			
Mines.	Tons.	Price.	
Great Wheal Busy	78	£3 12 0	
ditto	74	2 2 0	
ditto	72	4 1 6	
ditto	71	2 17 6	
ditto	66	3 8 0	
ditto	65	2 17 6	
ditto	55	4 11 6	
ditto	44	3 3 0	
ditto	43	3 7 6	
ditto	30	1 19 6	
ditto	22	6 7 6	
South Caradon	95	6 5 6	
ditto	85	6 1 6	
ditto	83	7 17 6	
ditto	68	7 14 0	
ditto	55	17 10 6	
ditto	39	18 2 6	
ditto	38	1 11 6	
United Mines	75	3 1 0	
ditto	70	2 1 6	
ditto	66	4 4 6	
ditto	60	3 19 6	
ditto	59	3 3 6	
ditto	28	3 11 6	
ditto	25	3 8 6	
ditto	22	1 14 6	
Fowey Consols	75	6 12 6	
ditto	75	6 12 6	
ditto	73	5 17 6	
ditto	70	6 18 0	
Mines.	Tons.	Price.	
Fowey Consols	60	£3 19 0	
West Damsel	63	4 10 6	
ditto	56	4 4 0	
ditto	50	5 9 0	
ditto	39	4 9 0	
ditto	37	3 16 0	
ditto	22	2 0 6	
Tywarnhale	79	2 18 6	
ditto	74	4 0 6	
ditto	65	4 18 6	
ditto	60	8 10 6	
South Crinnis	79	4 8 6	
ditto	74	5 16 6	
ditto	32	10 2 6	
North Crumpler	55	5 18 6	
ditto	30	9 8 6	
ditto	30	18 0 6	
New Treleigh	48	6 3 6	
ditto	45	5 30 6	
ditto	27	3 2 0	
Craddock Moor	53	8 2 0	
ditto	50	8 10 6	
Gonawema	66	5 0 6	
ditto	35	2 4 0	
Cuddra	61	2 18 6	
Great Grinnle	42	4 10 6	
Grubbs & St. Anby.	17	7 5 6	
East Tolgus	17	6 8 6	
North Bury	6	6 8 6	
Pembroke	3	4 6 0	

THE NORTH HAFOD SILVER-LEAD MINING COMPANY (LIMITED).

Incorporated in virtue of the 19th and 20th Vics. c. 47, and 20th and 21st Vics. c. 14.
Capital £12,000, in 6000 shares of £2 each. Deposit, 10s. per share.
And the balance, if required, to be paid by instalments of 5s. each, at intervals of not less than three months.

SECRETARY—Mr. Thomas Spargo.
CONSULTING ENGINEER—Capt. Matthew Francis.
OFFICES—224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON.

The North Hafod Silver-Lead Mining Company has been formed for the purchase and development of a rich and productive silver-lead mine, situated two miles from Devil's Bridge, thirteen miles to the east of Aberystwyth, and about a mile from the projected Manchester and Milford Haven Railway.

The grant upon which the company is founded embraces an extensive tract of ground, subject to the very moderate royalty of 1-20th.

The North Hafod Mines are immediately adjoining to, and surrounded by, some of the richest and best paying mines in the district, Cwmystwith, Ffronogch, and Nant-y-Cresan. Ffronogch is now giving profits to the extent of £1000 per month, Cwmystwith of £200 per month, and Nant-y-Cresan £1800 per month.

The county of Cardigan has for several centuries been distinguished as one of the richest lead-producing districts in the kingdom, and second only to the celebrated Altendale, Wensdale, and Derwent Mines, in the counties of Northumberland and Durham.

A beneficent Providence has been prodigal in the bestowal of mineral treasures upon this favoured county (Cardigan), and there have been numerous workings wrought for centuries. Numerous large fortunes have been realised by the adventurers in its mines; and a distinguished instance is established in the case of the celebrated Sir Hugh Myddelton, who derived £2000 per month from one of them, with which he prosecuted his great work—the formation of the New River from Ware to Lambeth, to supply the inhabitants of the metropolis with pure water.

The North Hafod Mine is situated upon the great Ffronogch lode, a vein of 33 ft. in width, containing courses of lead ore of excellent quality, nearly solid for an immense length, and from 9 to 10 ft. in thickness, the masses of ore lying in gossan, or divisions of conglomerated strata lode stone.

Large courses of ore are opened upon close to the boundary of the company's grant, and it is intended to adopt the most efficient and economical method of opening the lodes, by driving a cross-cut to intersect them at a low level, where immense deposits of ore are known to exist.

The necessity for the construction of a steam-engine, and the heavy expenses attendant upon working one, will be alleviated by the adoption of water-power, which is immediately available to an unusual extent.

And it is confidently expected by the most competent authorities that the realised profit, upon an outlay of £3000 of the capital the promoters have provided for, will enable the company to pay a liberal dividend to its shareholders; whilst interesting the lodes at various points, by cross-cut adits, will guarantee the certainty of producing immense profits to the shareholders.

The important position of the North Hafod Mines, and the intrinsic value of the various lodes which run the extreme length of the set, will be fully appreciated upon a perusal of the report of the consulting engineer of the company, Capt. Matthew Francis, which accompanies the prospectus.

The advance of modern science, and progress of enlightenment, are now introducing the railway system towards and amongst the Cardiganshire mountains, where their rich silver-lead mines abound, and in a brief time those fastnesses will participate in the facilities of transport afforded to the more favoured districts of England, when the value of the mining property of this singularly favoured province (Cardigan) will be largely enhanced.

The mining operations of the company will be under, and subject to, the immediate supervision of the eminent engineer, Capt. Matthew Francis, to whose report reference has been made.

The promoters of the undertaking, fully impressed with the great value of the North Hafod Mine, and the profitable results which must accrue from its efficient working, offer the remaining shares to the public, with a conviction that such an opportunity for the investment of capital is rarely presented for consideration.

The capital of the company is to be £12,000, divided into 6000 shares of £2 each, whereof 10s. per share is to be paid at the time of subscribing, and the remainder, or balance of £1 10s. per share, to be called for by instalments of 5s. per share each, at intervals of three months, of all of which calls 21 days' clear notice is to be given.

The undertaking to be under the immediate direction of a board of directors, to consist of not less than three or more than seven members, each of whom shall be required to qualify for office by subscribing for, and holding, 50 shares at the least in the capital of the company.

The company is incorporated under the 19th and 20th Vics. cap. 47, and 20th and 21st Vics. cap. 14, to limit the liability of the shareholders to the amount of their respective subscriptions to the capital thereof; and the Articles of Association to define the system of management under which the company is to be conducted, and to contain provisions to secure and maintain a true and proper system of check and counter-check in its financial transactions, and in the issue and transfer of shares; and to secure power to the board of directors to commence the operations of the company, and to carry out and conduct the business thereof before the whole of the capital be subscribed, and when in its discretion it shall deem expedient.

Prospectuses, with plans and sections of the property, as also reports of the progress made by the company, can be had on application to the secretary.

EAST WHEAL MARTHA MINING COMPANY (LIMITED).

Capital £15,000, in 6000 shares of £2 10s. each.
5s. per share to be paid upon application, and 5s. upon allotment. All future calls not to exceed 5s. per share, and not often than quarterly.

GEORGE SEARBY, Esq., Crown-court, Threadneedle-street, London.
EDGAR WILLIAMS YARROW, Esq., 14, Arundel-square, London.
JAMES LANE, Esq., 44, Threadneedle-street, London.
T. C. HAWKINS, Esq., 9, Broad-street, Oxford.
THOS. COOPER SMITH, Esq., Warford-court, Throhmorton-street.
BANKERS—London and County Bank.

SOLICITOR—Frederick Wm. Snell, Esq., 1, George-street, Mansion House.
AUDITORS—Messrs. Cooper Brothers and Co., 13, George-street, Mansion House, London.
CONSULTING AGENT—Capt. Joseph Richards.
SECRETARY—Mr. E. Evans.

OFFICES—23, MOORGATE STREET, CITY, LONDON, E.C.

The object of this company is to purchase and work the mineral ground lying between the Devon Great Consols and the Great Wheal Martha.

There are few instances of mining where success would appear to be more certain than in this case, as this mine is situated west of the Devon Great Consols, and east of the Great Wheal Martha. The success of the former mine is too well known to the public to require much comment, but it may be stated that it has returned in dividends nearly £1,000,000, on an original capital of £1024. The Great Wheal Martha Mine is one of the most successful instances of an old mine being reworked, the company having sold in a few months the amount of nearly £2500, and having at the present time about 1000 tons of ore broken and being prepared for sale, while the reserves in the different levels amount to more than 5000 tons, and there is no doubt the mine will soon commence paying good and lasting dividends. All this is the produce of one lode only, which has held continuously from the upper to the lower level, and is now in the bottom level 16 ft. wide, a fine course of ore. This lode is by practical men considered to be a continuation of the Devon Great Consols lode, and as the East Wheal Martha Mine is situated exactly between the two mines, there cannot be any doubt of this mine having the same lode running through the entire length of the set, from east to west; and there is one great fact to be borne in mind, that the further the levels at Great Wheal Martha are driven east the richer the lode becomes; and as the lode is dipping east and passes through this property, there can be no doubt of the mine proving as rich as its neighbours.

This mine will be drained to a considerable extent by the Great Wheal Martha, as the levels in that mine approach it eastward, a fact of the greatest importance as regards the expenditure and development of the mineral wealth contained in this property.

This mine has been worked and a large capital expended by a previous company, but having sunk their shaft down in a valley, where they were inundated with water from the higher ground above them, they were compelled to stop. They had just discovered that they had sunk their shaft too far south to cut the Devon Great Consols lode, which passes through the high ground above, and were making great exertions by driving a level northward to intersect this lode, but want of sufficient steam power, and the shareholders not being inclined to subscribe further, the mine was abandoned.

Arrangements have been made with the present proprietors for the purchase of this property, the proprietors to receive 2500 shares, free of all calls, and £1500 in cash, the latter to be returned to this company by an allowance out of the dues as the ores are raised and sold. This return to be made is a fact of importance, proving that the proprietors have every confidence in the mine making large returns, and bringing them in a large revenue.

Application for prospectuses and plans to be made to Mr. E. EVANS, 23, Moorgate-street, London.

The following is a report from Captain Joseph Richards, who, being connected with the underground workings at the Devon Great Consols, must be well acquainted with the run of the lodes and their connection with this property, and quite capable of giving an opinion on the future prospects of this mine:

Aug. 3, 1861.—I beg to hand you my report on this mine. It is situated directly east and adjoining Great Wheal Martha, where large returns of copper ore are being made, and the Devon Great Consols is in a direct line east of Great Wheal Martha, so that this mine may be considered to be in a very fine position; the great lode of Wheal Martha must run directly through the set, as well as several other lodes of very great promise. There have been shafts sunk and levels driven in East Wheal Martha, and although they cannot now be seen until the water is in for I am assured that the prospects were such underneath as might be fully expected from the very great and good appearances of the lode at surface. I am fully justified in highly recommending East Wheal Martha as a mining property of very much more than ordinary value as a speculation, and I am of opinion that those who may invest therein will have no cause to regret it, but, on the contrary, have every reason to congratulate themselves on the advisable selection of this extensive and exceedingly tempting property as an investment, containing as it does the necessary elements of success. In addition to the very fine appearances of the lodes themselves, there are cross-courses and intersections thereof, with the lodes attendant on which are often found the most splendid and valuable courses of ore. I will conclude by advising you to commence operations as soon as you can manage to do so, and I am exceedingly sanguine of the results proving in every way all I have said and intended to convey relative thereto. If you will refer to my report on Great Wheal Martha of Oct. 3, 1859, you will perceive that the results are bearing out what I then said of that property, and in East Wheal Martha you have a mine the prospects of which are not exceeded in my belief in any mine in the two counties, and I unhesitatingly advise all and every one who can to take an interest therein.

JOSEPH RICHARDS.

FORM OF APPLICATION FOR SHARES.

Shares £2 10s. each. Deposit on application, 5s. per share.

To the Directors of the East Wheal Martha Mining Company (Limited).
GENTLEMEN.—Having paid £5 to your credit at the London and County Bank, Threadneedle-street, City, I request that you will allot me shares in the East Wheal Martha Mining Company (Limited), and I hereby agree to accept such shares, or any less number that may be allotted to me, subject to the provisions of the Joint-Stock Companies Act.

Name.....
Address.....

Date.....

TO ADVENTURERS IN FOREIGN MINES.—MR. HARRY

THOMAS VERRAN, of PLACENTIA, NEWFOUNDLAND, who has had considerable experience (under the tuition of his father, and in connection with many other experienced Mining Engineers) is ready to UNDERTAKE THE EXAMINATION and REPORTING upon MINERAL PROPERTIES in Newfoundland, the United States, or any other country, where his services may prove useful to capitalists. The greatest confidence may be placed in Mr. VERRAN, who will use his best judgment in giving reliable information to those who may repose confidence in him.

THE PROGRESS OF MINING IN 1860,

BEING THE SEVENTEENTH ANNUAL REVIEW.
By J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1843), *Gleanings among Mines and Miners*, &c.
The SIXTEENTH ANNUAL REVIEW OF MINING PROGRESS appeared in the *MINING JOURNAL* of December 31, 1859, and January 7, 1860.

A FEW COPIES OF THE REVIEW OF 1859, containing Statistics of the Metal Trade, the Dividends and Percentage Paid by British and Foreign Mining Companies, and the State and Prospects of upwards of 200 Mines. Also a FEW COPIES OF THE REVIEW OF 1852, 1853, and 1854, MAY BE HAD on application at Messrs. WATSON and CUELL'S Mining offices, 1, St. Michael's-alley, Cornhill, London.
Also, STATISTICS OF THE MINING INTEREST. By W. H. CUELL.

WATSON and CUELL'S MINING CIRCULAR, published every Thursday morning, price 6d. or £1 1s. per annum, contains Special Reports of Mines, and the Latest Intelligence from the Mining Districts, from an exclusive resident agent; also, Special Recommendations and Advice upon all subjects connected with Mining, and interesting to Investors and speculators. A Record of Daily Transactions in the Share Market, Metal Sales, and General Share Lists, &c. Edited by J. Y. WATSON F.G.S., and published by WATSON and CUELL, 1, St. Michael's-alley, Cornhill.
N.B. Messrs. WATSON and CUELL have made a selection of a few dividend and progressive mines, which they have reason to believe will pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.

INVESTMENTS IN BRITISH MINES!

MR. MURCHISON'S REVIEW OF BRITISH MINING for the QUARTER ENDING 30TH MARCH, 1861, with Particulars of the Principal Dividend and Progressive Mines, Table of the Dividends Paid in the last Five Years, &c., is NOW READY. Price One Shilling. At 117, Bishopsgate-street Within, London, E.C.
Reliable information and advice will at any time be given on application.
Also, COPIES OF "BRITISH MINES CONSIDERED AS AN INVESTMENT." By J. H. MURCHISON, Esq., F.G.S., F.S.S. Pp. 356, boards, price 3s. 6d., by post 4s. See advertisement in another column.

Plates, 8vo., cloth, price 10s. 6d., by post 11s.

THE MINERS' MANUAL OF ARITHMETIC

AND SURVEYING.
By WILLIAM RICKARD,
Teacher of Practical Mining in the late Mining School of Cornwall, and Principal of the Engineering Academy, 4, Myrtle-street South, Liverpool.
Truro: Heard and Son, -London: Longman and Co.; the office of the *Mining Journal*, 26, Fleet-street; of the author, and of all booksellers.

Just published, price 6d., by post 7d.

COLLIERY EXPLOSIONS, AND A MEANS TO

PREVENT THEM.

BY RICHARD HUGH HUGHES.

A pamphlet replete with highly interesting historical narrative, and thoroughly business-like remarks, bearing upon colliery explosions and colliery ventilation.—*Mining Journal*.
London: F. Plummer, printer, 21, Great New-street, E.C.; and the Author, Atlas Safety Gas-Fitting Works, Hatton Garden.

NEW PATENT ACT.—MR. CAMPIN, having advocated

Patent Law Reform before the Government and Legislature, and in the pages of the *Mining Journal*, &c., now ADVISES and ASSISTS INVENTORS.
The CIRCULAR of INFORMATION gratis, on application to the Patent Office and Designs Registry, 186, Strand.

Notices to Correspondents.

GREAT WHEAL ALFRED.—A large holder in this mine agrees with your correspondent, and would esteem it an act of gentlemanly kindness if our much esteemed Chairman, Dr. Beattie, would consent to have driven the level spoken of, and prove the correctness or incorrectness of Capt. Trevelyan's ideas. All parties cannot but then say that the high confidence in the integrity of our worthy and esteemed Chairman has not been misplaced.—*JUSTICE*.

SAFETY LAMPS.—I observe that Mr. Matthias Dunn refers to the fearful practice of permitting the men to trim their lamps by forcing a wire through the gauze instead of by using the ordinary pricker; and surely, if such a practice be anything like general, it would be well to secure, so far as possible, glass-sided lamps. Having long been a constant reader of the *Journal*, I have read the descriptions of lamps of this class, and also many recommendations articles concerning them, but I have never heard of a colliery in which they have been introduced. Could any of your correspondents inform me of such a colliery, as I should be glad to learn the amount of success which has attended their introduction? The lamp I particularly noticed was the Mordant, and I think Messrs. Abbott and Co., of Newcastle-on-Tyne, were the manufacturers, perhaps they could give the information.—*COAL*.

EAST TAMEL.—In reply to a letter in the *Journal* of the 17th inst., signed "A Shareholder," I beg to say that if he will apply at the office of the company he will obtain any information he may require as to the sale of materials, &c.—*T. B. LAWS, Sec.*

SOUTH DEVON IRON AND GENERAL MINING COMPANY.—Having lately returned from a visit to the Atlas Mines, I wish to inform the shareholders, through the *Journal*, the state in which I found that portion of the company's property. I first inspected the water-wheel, but through want of water only four loads of stamps were at work, instead of twelve, yet there is plenty of ore at surface to keep them all going, and the miners hauling more that will well pay for crushing, although at so shallow a depth, and there is every indication of a good tin mine if the works are pushed on speedily and economically. The iron portion, which I saw next, was quite at a standstill, and, if I may judge from appearances, has been so for some months. Altogether, things looked as though a committee of shareholders were wanted to prevent the South Devon Iron and General Mining Company being numbered with things of the past.—*H. W.*

SEND IRON WORKS.—"H." will find some particulars in the letter of our Staffordshire correspondent, which show that he has not been correctly informed.

THE DISCOVERY AT GREAT TREVELDEDE MINE.—About a month ago a statement was made that a very rich tin lode was cut at this mine, a few fathoms from surface. It was reported to be worth 100l. per fathom. No official report has appeared in the *Journal* respecting it, although a great many shares have changed hands in consequence of the alleged discovery. The lode has either been discovered or not discovered at all; if it has not been discovered it should have been declared, and if it has been discovered it ought to have been declared, and if it is not fair to the shareholders, do none of the officials of this mine take sufficient interest in it to acquaint the shareholders and the public of an important discovery? If I am rightly informed the lode is a very valuable one, and the price of the shares ought to be five times their present value. I am informed that a sample of the lode has been submitted to an eminent mining authority, who has given his opinion that it contains a large percentage of tin; if this be so, do not let the candle be hid under a bushel. I trust the manager and purser, for their own credit, as well as for the benefit of the shareholders, will let their light shine.—*A SHAREHOLDER*.

GREAT KANAWHA COMPANY.—I should feel obliged if any of your correspondents would inform me whether there has been any meeting of the shareholders in this company, which was formed about ten months ago, and whether they have received any report from their agent in America?—*INQUIRER: Liverpool, Aug. 23.*

The communication of our Truro Correspondent has been unavoidably postponed.

GREAT WHEAL VOR.—Your correspondent, in communicating the account of my recent applications to the Vice-Warden, has fallen into no less than six distinct misrepresentations:—1. That the extent of my holding in Wheal Vor is 24½-25,720 lbs.—2. That the nature of my application on the 14th inst. was to inspect the books, &c.—3. That my former application was similar to the latter.—4. That the former application was refused.—5. That the recent application was refused.—6. That 1-10,000th part of the mine were to be the nearest fraction capable of representing my interest. The facts are that I applied for, and obtained, in 1853, 20 shares in this mine, and I have not since disposed of any portion of my interest. The prospectus now before me represents the mine to be divided into 200,000 shares, my interest, therefore, was 1-4000th part. On the 14th inst. I applied to the Vice-Warden for an order calling on Mr. Noakes, the purser, to produce to me, for my inspection, and to take a copy, a list of the shareholders, with their addresses, &c., which was granted on the 15th, and served on Mr. Noakes at the office of the mines, in my presence, on the 17th. The former application, in February last, was for an order to inspect the books, &c.; this was also granted by the Vice-Warden, and served on Mr. Noakes in due course.—*GEORGE GOODRIDGE: Park-street, Regent's-park, Aug. 29.*

SILVER VEIN COMPANY.—"A Shareholder" will find in our present *Journal*, and in that of last week, a notice from Mr. Squire, offering to furnish samples to purchasers, of about 20 tons silver ores. Other information can be had on application at the office.

MINING IN ST. TREATH.—I was called upon a few days since to accompany a party over the set of Old Treburtet, and the observations made by them have caused me to make a few remarks on this most neglected mining district, and shall feel thankful if you can find space for them in your valuable *Journal*. Since the Old Treburtet Mine was so cowardly abandoned, there have been several other lodes opened in the same valley, and adjoining sets, all of them congenial for the production of lead, and most of them containing lead within a few feet of the surface. Two of them—North Treburtet and Wheal Eckley—have had good engines and plenty of buildings erected, but they went only a very few fathoms under a shallow adit before they were abandoned, so that neither of those lodes have had a fair trial. At Wheal Samson, where some of the richest argentiferous ore in the county have been raised, and where the last bunch of this ore was broken, containing nearly a ton, there have been very few little operations carried on.—This is abandoned also. Treagrock is working, but by a very few men, though I trust their late discovery will stimulate the adventurers, and induce them to carry it on with greater spirit. Pengenna (which is south of and nearly joining the Old Treburtet) is being carried on under the able management of Capt. Ennor, and I have no doubt of its making a good mine. But the Old Treburtet to lie idle so long is a mystery to me, when nearly all practical agents that have visited the mine for years past have pronounced it to be one of the best and surest speculations they have ever seen; and old miners retreating, that worked there in their youthful days, and know more of mining now, declare that they have not seen so equal since they left, and wonder it cannot be worked again, feeling confident there is plenty left. The only reason I have heard for its not being worked is the great amount of capital required, which is a very bad excuse, as many have said that 5000l. would be quite sufficient to bring it into a paying state, and others have gone so far as 10,000l.; but surely even this amount should not be an obstacle in bringing out a mine that is thought by everyone to be of such value, and has paid more than 90,000l. in dividends, and abandoned only because the little engine they had could not sink it so deeper, or even keep the water at the present depth (60 fathoms). The old part of the mine was abandoned whilst in a paying state, because the engine, after being removed to another part of the mine, would not work fast-road to the old mine, as expected, leaving more than 100 fathoms in length untried under the adit, with the exception of one level driven back from the 40, from which they rose and unwatered the old mine, but nothing more was done in that part of the mine, because they did not find lead in such abundance as at the new mine, not knowing they were throwing away hundreds of pounds worth of silver at the same time. Mr. Pearce, the proprietor, has granted several licences to parties, who have either failed or never tried to get up a company. I understand he has now granted a six months' license again, and I trust ere long this worthy old mine will be in full operation again, and the fortunate adventurers (for I feel confident they will be fortunate) get twentyfold for their outlay.—*A WELL-WISHER TO MINING.*

Clay Cross Colliery Accident.

CLAY CROSS COLLIERY ACCIDENT.—

ADDITIONAL SUBSCRIPTIONS RECEIVED since last publication:—

Rev. John Bateman	2 0 0
The Grassmoor Company, Haaland	15 0 0
C. Oliver, Esq., Chesterfield	5 0 0
J. S. Crossley, Esq., Derby	5 0 0
Mr. Tyndal	1 0 0
G. R. Stephenson, Esq., London	25 0 0
Peter Huggie, Esq., Gateshead	10 10 0
Mr. F. E. Martin, Esq., Chesterfield	2 2 0
Mr. Britt, Chesterfield	1 1 0
The Batterley Company, Alfreton	50 0 0
Charrington, Sells, and Co., London	15 15 0
Mr. Thos. Evans, Nottingham	1 0 0
Rev. R. C. Willey, Clay Cross	1 0 0
Mr. C. Smith, Chesterfield	1 0 0
Calow Independent Sunday School	0 15 0
Mr. Robert Howe, Clay Cross	0 10 6
Mrs. E. Smith, Chesterfield (additional)	5 0 0
Dr. Bright, Overton Hall, Ashover	10 0 0
Mr. J. B. White, Chesterfield	1 1 0

Subscriptions will be received by the Mayor of Chesterfield, the Derby and Chesterfield Banks, and by the honorary secretary, GEORGE BARROW, Hon. Sec.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, AUGUST 31, 1861.

The returns from the Board of Trade again show a decrease in the value of the exports, as compared with the last and previous year. They are made up for the seven months ending July 31. The total declared value of goods exported, the produce and the manufacture of this country, is 70,237,685l., for the period mentioned of this year; while for the seven months of 1860 it was 74,542,687l., being a falling off consequently of 4,305,002l.; and in 1859 the aggregate value was 74,238,610l., giving, therefore, 4,050,925l. less for 1861. Considering the general inactivity of our trade, no other result was anticipated; and, indeed, it was thought the figures would have been of larger amount than these official statistics prove. The continued unsettled position of the United States is naturally one great cause, if not the greatest, of our unsatisfactory state of commerce, and it seems difficult to determine as to the probability even of a favourable turn as respects the bearing of political on commercial operations in that country.

It is satisfactory to mention that the decrease in the articles identified with the mining industry of the country is not in its usual ratio, inasmuch as it now represents only 125,840l. out of the 4,305,002l. This is a material improvement, and is good evidence that in this portion of the trade of the country there is more animation than might have been expected. In iron of various kinds there is an excess over last year of 398,236l.; in machinery, 375,908l.; in coals and culm, 237,009l.; together, 1,011,153l. while on the reverse side we have copper set down at 451,707l. less than 1860; hardwares, 117,886l.; tin, 367,379l.; lead, 97,759l.; steel, 90,671l.; and brass, 11,591l.; making collectively 1,136,998l., and consequently giving the balance decrease at 125,840l., as already mentioned.

The precious metals continue to be against this country on balance of trade. The imports during the seven months were 11,254,351l., and the exports 16,172,126l., so that we are losers to the extent of 4,917,775l. in this respect. The imports consisted of 7,283,471l. in gold, and 3,970,880l. in silver; and the exports 9,510,482l. in gold, and 6,661,644l. in silver.

APPLICATION OF EXCAVATING MACHINERY TO MINING.

Nearly every department of industry partakes of the momentum with which the world is now moving forward. Science has touched with its potent wand agriculture, manufactures, and locomotion; "it has spanned great rivers and estuaries, intersected the land with iron roads, and traversed them with cars 50 miles an hour; ploughed the Atlantic 14 knots an hour against the wind, laid bare the floor of the ocean, brought the fixed stars to our feet, annihilated space, and made a point inconceivably distant yesterday its goal to-day, and its starting point to-morrow;" but the progress of the miner in his patient burrowings through the indurated rock is precisely what it was when the Roman landed his legions upon our shores; or, earlier yet, when Pytheas led his daring adventurers from Phoenicia into the rough latitudes of the British Isles. The miner knocks perseveringly at the prison-house of the shining treasure, and slowly is the gate opened—sometimes never, and often only when generation after generation of importunate besiegers have passed away. Occasionally, but only at rare intervals, the door which bars the entrance to the unrevealed hoards flies open as if on the pronouncement of an "Open Sesame," and the adventurer thus suddenly endowed with wealth becomes the object of envy and emulation to thousands, who hazard their all upon a remote possibility, leaving behind them a painful moral, which might well "adorn a tale."

These reflections have been suggested by the novel and startling proposition which appeared in last week's *Journal*, of applying steam machinery as a substitute for hand labour in the sinking of shafts and driving levels and cross-cuts. We have called the proposition novel, though such an idea must have often occurred to the reflecting miner, as that of steam, applied to manufactures and locomotion, to many a thoughtful man before Watt or Stephenson, by their marvellous powers, reduced the theory to practice. The novelty, however, in the present instance arises from the form in which the proposal is placed before the capitalist and the world; it is startling, because a new and magnificent prospect will be opened up to thousands in England who know what science and capital have achieved in other walks of industry. If steam machinery can plough our fields, reap our harvests, spin and weave our raw cotton, silk, and flax, point a needle, rifle an Armstrong gun, or construct a frigate at a few days or hours notice, it is impossible that the same agent should take its stand in front of the granite forebrest of the miners' drift, and with 20 augers, urged onward by as many hammers, honeycomb the rock, and win its triumphal way with a giant's stride where the arm of the miner drops paralysed in the struggle? Only those will laugh who would have laughed at Trevithick, Arkwright, or Smeaton. Many a bold and successful project has found its inception in a Cornish man's mind, although in Cornwall, as elsewhere, interest and ignorance will array themselves against an innovation, however great and beneficent: the results promised by its triumph.

The innovator in the present instance offers to sink a shaft of 200 fms in 12 months, and drive a level at a minimum rate of a fathom per diem. And why not? If 20 men could stand in one end, or 40 in a shaft, the work could be accomplished, but neither the prescribed space for the workmen, nor the atmosphere: supply for the lungs of as many manipulators, admit of such an application of human power, to say nothing of the costly nature of human labour! But with machinery the case is altered, power is concentrated and augmented, and the crying evil of a poisoned atmosphere, which slays its thousands, is absolutely corrected, or reduced to its minimum amount of mischief. Could such an agent be anything but a boon to the working miner? Would it displace his labour? Would it not augment it tenfold? Would not whole districts, now abandoned, because the ore is so sparsely distributed as to render the costly hand labour of the miner unremunerative, spring into activity, and give employment to thousands who have now to carry their skill and enterprise to the remotest regions of the earth, where mining may be found in that virgin state in which centuries ago it existed in our own country?

By the proposed substitute the labour of the miner would be transferred from a sphere where little more than patience and strength are required, to one in which judgment and skill would be involved—to the stopes and tribute pitches, the extent of which would be augmented tenfold, or to what would, under the new system of mining, assume a more important relative position, that of ore-dressing, which, it is well known, admits of immense improvement, and which improvement would be necessitated by the greatly increased return as under the altered circumstances.

Let us for a moment compare the two agencies, not so much as to their results, but as to their relative efficiency, *per se*. With his hammer and auger the miner may now administer, upon an average, eight blows per minute. How many of the se blows are effective? How many fall powerless upon the boring instrument? Is it not obvious that they must diminish in force with the exhaustion of the manipulator? How many times must he rest to recruit his strength during the few hours of occupation? How often must he retire during the blasting operation? These and numerous other important queries suggest themselves. But how different

are the conditions with a machine driven by steam-power. Every blow is true, every blow is effective. The rapidity with which the blows are administered increases their efficiency. Meanwhile, the same process is going on over the whole surface; the boring instrument can be driven deeper into the recesses of the rock, one blasting on the removal of the machine will suffice to strip the whole face of the forebreast. The replacement of the machine will assist to clear the level of the foul atmosphere arising from the explosion, and the work will be carried forward with an impetus so unwonted that mining will no longer be counted among the laggards of civilisation.

By the existing system the courage and faith which are demanded of the adventurer makes one often wonder that he does not eschew mining altogether. Nothing but the brilliancy of the prizes, at rare intervals, could sustain his fainting hopes. In certain districts, for example, it is well known that no success can be reasonably anticipated within 80 or 100 fms. from the surface, and the adventurer often embarks in an enterprise involving years of time and a large outlay of capital, it may be of the highest promise, but, nevertheless, presenting the most absolute uncertainty of success. Or where depth has not to be encountered, long drivages, either in the shape of cross-cuts or on the course of the lode, are necessarily attended by the same penalties of time and expenditure. In either case, by the adoption of steam-boring machinery time would be abridged and outlay economised in a ratio which would reduce mining almost to the condition of commerce or manufactures. We could, if the facts were not notorious, point out innumerable cases where courses of ore known to exist could not be worked for want of ventilation, a matter easily remediable by the introduction of steam-machinery; and other instances where whole districts have lain idle for years, during the tardy process of bringing up an adit, the only thing that hindered the vigorous application of capital for the development of the well-known mineral resources of the neighbourhood. Such works could be reduced by machinery to a question of months instead of years, and to an outlay of hundreds instead of thousands of pounds.

But our readers travel faster than we do in anticipating the results which may fairly be looked for from the introduction of machinery in place of the rude hand labour now employed. It is demanded by the diminished and diminishing productiveness of the copper and tin mines of Cornwall and Devonshire. It is demanded, as necessary to bring up this ancient and honourable industry of the West of England to a level with the other great industries of the country. It is imperatively demanded by the miner, whose premature exhaustion and early grave are the inevitable result of the present cruel system. Capital demands, and is entitled to in this present nineteenth century, a better and more certain reward. Science, which is ruling the elements of Nature everywhere, demands that this department be no longer excluded from her dominion, a department which she is capable of subordinating as any of those wherein she now reigns with a sway which admits of no opposition, and where her operations demand and receive universal admiration.

LOSS OF LIFE AMONGST CORNISH MINERS—No. VIII.

We very willingly gave insertion last Saturday to Mr. Tregay's letter, in opposition to the Government enquiry into the causes and remedies for the excessive disease amongst Cornish miners we advocate, for it is only just that both sides should be heard, and the more a good cause is canvassed, the more distinctly does the truth appear. To most of Mr. Tregay's objections we have already replied by anticipation, and some of his arguments are reasons for our side of the question rather than for his. For example, he says, and says truly, that Cornish miners are more highly educated than some writers he alludes to have any idea of. Now, what does this prove but that a Government enquiry as to the cause of a tremendous evil afflicting this unusually intelligent body of men, will elicit from them an explanation of the reason why the evils they endure continue, what it is that prevents their intelligence having fair play to guard themselves and each other from some of the greatest evils men can suffer, —loss of that health without which life is a burden?

Mr. Tregay acknowledges and deprecates the loss of life amongst miners, consequent upon deficient ventilation, and the thousand and one ills to which miners are subject, but asks,—"Will a Government enquiry mend the matter?" We reply,—Nothing is so likely to mend the matter as directing attention to the evil, searching for its causes, and stimulating men's minds to devise remedies, and nothing will do this so powerfully as such an enquiry as we recommend. Mr. Tregay says that much improvement has been made, and seems to infer that, therefore, all is going on right. We draw another inference from the same fact. Though there have been improvements, in ventilation especially, followed by prolongation of life and diminution of disease in some mines, the condition of miners, as a class, remains nearly as bad as it was. We wish that the effect of the improvements that have been made should be rendered known to all, so that all may be benefited by what is now the experience of a few only.

Mr. Tregay says "surprise has been expressed in some quarters that metallic mines should, as a general rule, be left to natural ventilation;" this is not correct. The surprise expressed is that full advantage is not taken of natural ventilation, as Mr. Tregay may see if he will read an article in the Journal of July 6 with only ordinary attention. We there proved that in most mines, at most times, natural ventilation would be, if well managed, quite sufficient; that it is not sufficient as now managed is too well known by those who suffer from the want of air. What is needed is, that all mine managers should know, as well as many do, how to make natural ventilation effective, and that all mine adventurers should be induced to permit the necessary expenses to be incurred which they willingly would do were they thoroughly acquainted with the subject, and be as convinced as we are, that causes of disease are as destructive of profits as they are of lives. Nothing would be so likely to produce this conviction as a complete investigation by men conversant with such investigations, and not so closely connected with mining as to make their impartiality suspected.

Mr. Tregay asks, "Can we suppose that a Government enquiry alone will be of any use?" We have already answered this, but will say again, the enquiry alone, without any subsequent legislation, would in all probability be of as great benefit in this, as such enquiries have proved to be in numerous analogous cases. The allegation that a great part of the excessive loss of life amongst miners is occasioned by mismanagement is either true or not. If not true, then it is most important that mine managers and adventurers should be relieved from the accusation of doing, or allowing to be done, that which destroys the health and lives of their workmen; but if the common opinion be true, then a Government enquiry will be most valuable by showing what are the difficulties which prevent those improvements being universally introduced which have been successful when used, and would most powerfully stimulate other improvements of the like nature.

Mr. Tregay had as much confidence in the good sense and good feeling of mine managers as we have, he would expect, as we do, that the result of the enquiry we ask for would be to hold out so fair a prospect of the spontaneous amelioration of the evils it will unquestionably expose, that further interference will not appear needed; and there is no risk of any not urgently needed being forced upon us, unless, indeed, we foolishly resist all enquiry, and act as if we neither acknowledged the existence of the evil or desired its removal. If those interested in mining generally act so as to produce that impression, it is possible enough they may be treated as they would deserve to be—as incorrigible offenders, who can be prevented by penal legislation only from doing what produces all the misery of intentional cruelty. Such, however, will not be the result. Enquiry will show that mine managers, as a class, are not indifferent to the safety and welfare of their men; it will show, too, why their wish to ameliorate their condition is thwarted; it would, according to the old saying, "put the saddle on the right horse," by showing what it is, and who they are, that prevent that being done which mine managers know full well ought to be done.

Mr. Tregay says that "enquiry would be immediately followed by speedy legislation by a Government and Legislature that aspires to the regulation of every minutia in domestic arrangement, and in all commercial enterprise, with so scrupulous an exactness as is now so ludicrously practised in the States of Germany." We ask whether the hesitation the Government has shown to enter upon the enquiry agrees with their supposed eagerness to undertake the regulation of mines? Is it not rather an indication of unwillingness to begin an investigation lest they should find themselves compelled to assume the subsequent control of mining? If Mr. Tregay were half as confident of the strength of his case as he professes to be, he would feel no dread that the result of the investigation should be to prove that interference is necessary, which he says is quite needless. For our part, we expect the result will be to show such a willingness, such an eagerness, to wipe out the disgrace that now attends Cornish mining, that the Government and the Legislature will be alike satisfied to allow that improvement to develop itself spontaneously. We have no fear that Government will wil-

lingly do too much; our dread is that they will not soon be induced to do that which justice, humanity, and policy alike demand—to cause a full and fair investigation to be made into an evil of national magnitude, and satisfy themselves either that there is progress making, or take steps to ensure that progress shall be made towards its quick and complete removal.

ACTION AGAINST A COLLIERY PROPRIETOR FOR NON-OBSERVANCE OF SPECIAL RULES.—On Thursday, proceedings were instituted at the Police Court, under the various sections of the 23 and 24 Vict., for "The Regulation and Inspection of Mines," against Francis Hennikin Perkins, residing in Cwmaman, in the county of Carmarthen, owner of Lynch Colliery, Llanrhidian, in Gower—1. For not boring sufficiently far in advance of the workings to prevent inundation.—2. For not hanging up a copy of the special rules in a conspicuous position in the pay-office for the guidance of the colliers.—3. For paying the men at a public-house.—4. For not having an indicator to show the position of the "load" in the pit.—5. For commencing working the pit without giving the usual notice to the Government Inspector of Coal Mines. Mr. Thomas Evans, Her Majesty's Inspector for the district, attended, and Mr. Tripp appeared on behalf of the prosecution. It will be remembered that about six weeks or two months ago, the Lynch Colliery, near Llanrhidian, was inundated, and two men lost their lives. The colliery had not long been opened, and the men had unexpectedly come upon old workings full of water. It was subsequently inspected by Mr. Evans, who finding that the Act of Parliament recently enacted for the regulation of coal mines had not been complied with, instituted legal proceedings. Mr. Perkins remarked that he had not received the summonses until late the previous evening, and had, consequently, not been able to form his defence; he, therefore, applied for an adjournment. Mr. Tripp, on behalf of the Crown, did not object, and the case was adjourned until Sept. 7.

PUNISHMENT FOR BREACHES OF THE MINES REGULATION AND INSPECTION ACT.—At Burnley, in the Manchester district, Mr. J. Watson, managing partner of the Small Hazells Colliery, Habersham Eaves, was on Monday last fined by the magistrates 5*l.* and costs for neglecting to fence the fly-wheel of one of the engines, and for neglecting to have special rules established. A short time previously the engineman got caught by the crank, which is near to the fly-wheel, and also exposed, by which he was so injured as to cause his death in the Manchester Infirmary.—The local paper of Burnley reports that the fireman of the Rowley Colliery there has by consent paid a fine of 1*l.* to the sick fund for his neglect to make an examination of a place in the colliery, which occasioned the burning of two persons, father and son, by an explosion of fire-damp.

THE PENNYWELL COLLIERY ACCIDENT—THE ROPE.—After the evidence, the Coroner, in summing up, said when the jury and himself visited the pit they were struck with the thought that the rope was rusty, and that in consequence it rendered it extremely liable to injury, but it had been explained to them that it was the custom to keep the rope well supplied with oil and tar, and that the constant friction of the rope round the drums and pulleys was amply sufficient to protect it from suffering material injury. Then there was the supposition that the injury to the rope had been occasioned by its passing over too small a drum; but upon examination it was found that injury had been done to one very small portion of the rope. It, however, was already shown by Mr. Brough that, owing to the smallness of the drums, every half-inch of the rope, or every small portion of it, presented an angle, and as they passed over the drums those angles came in contact with them, and from a fine fibrous substance, the rope was converted into a state of crystallisation. It was proved that the rope was the third in use within a recent period, and also that previous to the present accident no rope had broken there before. This showed that all connected with the pit were in a measure justified for the confidence which they had in the strength of the rope. The learned Coroner then adverted to, and explained the law of manslaughter to the jury, and said he need not tell them that had it been for a single moment proved that the proprietors of the mine had used a rope unfit for the duty, in order to save expense, he would have had no hesitation in saying that a felony had been committed in using it. The present rope, however, had been supplied by Messrs. Newall, and, to all appearance, it was quite capable of performing the duties allotted to it, and there had been no grounds of supposing otherwise. The jury returned a verdict to the effect that the deceased had come to his death accidentally; but they expressed a unanimous opinion that the safety of those in the mine would be much more increased by the proprietors providing larger drums, stronger rope, and new machinery, and recommend the proprietors to act upon that suggestion.

MR. HUNT'S PATENT ORE-SEPARATOR.—Our Tinto Correspondent, in his communication of the week before last, referred to the patent ore-separator of Mr. John Hunt, now in operation at Wheal Penrose, near Porthleven, where we should recommend any of our readers interested in improvements in ore-dressing to give it a personal inspection. By it two persons can readily treat from 10 to 15 tons of work in eight hours, in a hutch 5 ft. deep, 4 ft. long, and 2½ ft. wide, which costs from 20*l.* to 25*l.* It is also particularly suited for the washing of auriferous sands, the smallest grain of gold being easily separated from the midst of a sack of sand. As our correspondent stated, Mr. Hunt is a practical and successful man in all operations connected with the dressing of ores, and one, therefore, whose improvements are worthy the consideration of practical men.

TREATMENT OF POOR COPPER ORES.—An invention of a very interesting nature has been provisionally specified by Mr. G. D. Mease, of the Lake Chemical Works, South Shields, for treating poor copper sulphides for the economic production of sulphuric acid, and at the same time the separation of such copper and silver as may be contained in the ores. He burns the ore in an ordinary pyrites kiln, but passes steam through the ore whilst it is burning. This favours the formation both of sulphate of copper and peroxide of iron. The sulphurous acid gas is mixed with nitrous gases, and passed into the leaden chamber, as is usual in the manufacture of sulphuric acid. The copper not converted into sulphate is mixed with protosulphate of iron, or with crude ore or sulphur, and the mixture exposed to heat and moisture. The copper in the sulphate of copper is dissolved out with water, and precipitated by passing the solution over metallic iron, and the solution of protosulphate of iron is evaporated, and a portion of the salt crystallised out. The mother liquor is the solution of protosulphate of iron, which the inventor employs for mixing with the burnt ore. Mr. Mease also proposes a chlorine process, the chief feature of which appears to be the use of waste manganese liquor, which contains both chlorite of iron and hydrochloric acid. The silver ores are treated by converting the silver into sulphate or chloride by a similar process.

NEW SELF-ACTING LUBRICATING INVENTION.—Few subjects are of more commercial importance, few have and continue to occupy so large an amount of attention, and any inventor who, in ever so small a degree, tends, by his ingenuity, to solve the great questions involved certainly confers a benefit on society at large. The obstacles to good lubrication—hot bearings, the gumming of different oils, continual waste, constant attention, and enormous cost, are all involved in the present mode of lubrication. Let us, then, first examine the instrument, and afterwards its effect on the points alluded to. A simple tin box contains the lubricating matter, of which we have so many descriptions for all sorts of purposes. This box is furnished with an axle running its whole length, supplied with as many cups as there may be journals or bearings to lubricate. At one end is fixed a small cog-wheel, which is caused to rotate by a small crab-pin resting against an eccentric. The quantity contained by the cups as they rotate can be determined by a small screw inserted in each, and may vary from 1 drop to 50, supplied to the lubricating tubes, and, once the box filled with oil, no further attention is necessary for from 12 to 24 hours; so much for the instrument itself. Now for the influence it exercises. What causes hot bearings? We should certainly reply, a want of constant supply, in sufficient quantity, of the oil or other matter used for lubricating. But, as by means of this new instrument the supply can be regulated to a drop, we need hear of no more hot bearings. The gumming being occasioned by a larger quantity of oil than is necessary for lubrication, being supplied to the machinery, is avoided by the same means. No waste can accrue, as all the oil necessary for lubrication being used up, and no more than is necessary supplied, there is no further waste than must accrue by the use of the best known lubricators, after the lubricating properties have been extracted and made use of. Seeing that by the simple nature of the construction of the instrument it will continue to work whilst the machinery is in motion, it will suffice to refill the cans every 12, 24, or 48 hours, according to the size of the instrument. We can safely say it requires no unnecessary attention or constant labour. With regard to economy: it is important to learn that any kind of oil may be used, and that an essential called Feint's oil has been for some months in use by the inventor. The present price of this oil is only 2*s.* per gallon, and has in his distillery, where nearly 70 instruments are now at work, entirely superseded the use of olive oil and other lubricators. This instrument has not yet been brought into public notice, and it is only at the instigation of several friends that the inventor, Mr. Swan, has been induced to register his instrument, and allow the public the opportunity of profiting by his ingenuity. That the cause of the gumming of various oils is difficult to solve, and depends, no doubt, on a peculiar quality in such oils, the exact composition of which is not yet deter-

mined, there can be no question; but that a very great deal depends on the manner in which oil is supplied to bearings, or journals, requiring lubrication there can likewise be no question. We ourselves have seen hot bearings cooled by the incessant application of small quantities of resin oil, generally supposed to be peculiarly subject to the quality called gumming, and certainly not considered a good lubricator. But from what we have seen at Messrs. Haig and Co.'s distillery, Hammersmith, and which everyone interested in this matter may also see, little more remains to perfect the present obstacles to lubrication mentioned at the outset of this paper.

REPORT FROM NORTHUMBERLAND AND DURHAM.

AUG. 29.—The Coal Trade continues much as last reported, certainly not very brisk, but we do not hear many complaints as to want of employment; the trade, indeed, appears to be sufficiently good to keep the works going at a moderate rate. There is nothing of very striking interest to report. The alarm we noticed lately as having occurred among the miners of the Hartley Colliery on account of the proximity of their workings to a large body of water contained in old workings is now entirely removed, the water having been tapped by means of bore-holes, and is now being run off; this will not only remove all cause of danger, but materially improve the position of the colliery in the future, as it will give access to a large field of coal in the vicinity. An explosion occurred at the Ellenborough Colliery, Maryport, on Monday, by which one man was killed. A staple has been sunk lately from the ten-quarter coal seam down to a lower coal seam. The coal having been reached on Friday last, according to the accounts we have received, the strictest orders had been given by the viewer that no open light was to be taken near the place, as fears were entertained that gas might be given off from this coal seam. But the pit being off work on Monday, a man in charge of the pumps had gone down the pit, and approached the place with an open light, and thus caused the explosion, which resulted in his own death.—A sad accident has also occurred at the Crosby Colliery, near Maryport, by which three men and eighteen horses were suffocated, and over 200 men thrown idle. By the carelessness of Wm. Bagz, who was trimming a lamp, and happened to burn his fingers, some ignited naphtha was scattered on a wooden stage, and the fire instantly so extended that in the course of a very short time the whole place was in a complete blaze. Fortunately, a special train happened to be passing with a party of gentlemen, and they, perceiving what had happened, conveyed the alarm to Maryport, whence the fire-engine was dispatched with all possible speed. The locomotive engine proceeded on to Flimby, where the managing proprietor, Mr. Wm. Mulcaster, resides, and conveyed him to the scene of the conflagration. The same train then brought intelligence to Mr. Mulcaster, of Whitehaven, a son of Mr. Mulcaster, of Crosby Colliery, and he, accompanied by Mr. George Dixon, mining engineer, and Mr. Thew, of the Whitehaven Railways at once posted to the place. Meantime every possible exertion was made to subdue the flames, but, notwithstanding, the whole of the appliances connected with the winding-engine, the screening apparatus, &c., were laid in ashes. The engine-house was completely gutted; and the walls of the engine-house, which are of stone, will very likely have to come down. Besides the winding-engine there is a pumping-engine, and house at the pit top, but, fortunately, these remain untouched, although the working of the pumping-engine was suspended for some few hours. The pit will be put in working order as soon as possible, but the sad disaster will throw it entirely out of work for some two or three months.

Mr. W. T. Barker, late manager of the Hive Iron-works, at East Jarrow, has been entertained at supper, and presented with a valuable gold watch and appendages, on the occasion of his leaving that establishment.

The Iron Trade continues extremely sluggish: no improvement whatever can be reported in this branch of trade. The continued dull state of this trade has induced the principal makers of manufactured iron in this district to propose a reduction in the wages of puddlers of 10 per cent. This, however, has not been submitted to, and the result is a strike; this refers to all the principal works on the Tyne at Middlesbrough, and also at Consett. At the latter works much uneasiness is felt respecting the present prospect, as much uncertainty prevails as to whether the works will be continued beyond six months. Should these great works unfortunately be stopped, the result will be disastrous to a large number of workmen, and also to numbers of tradesmen in the vicinity. The great body of workmen would, indeed, no doubt be partially employed by other firms, but the result in the altered value of the property built would be very serious. This result, however, will we hope be avoided by some means.

Great complaints are heard as to the state of the alkali trade on the Tyne. It is extremely depressed, and as a large number of hands are employed in the trade, much distress is felt in consequence.

That the working miners of this district are still gradually improving in general intelligence and knowledge, and that their moral character is by those means elevated, cannot for one moment be doubted by anyone intimately acquainted with them. The more general establishment of colliery schools has, no doubt, contributed very much to this result, as there the young receive at least some elementary education. That this has, in a great majority of cases, hitherto been deficient, both in quantity and quality, must be admitted, but the recent change in the Act of Parliament respecting the admission of children for employment in mines will, it is hoped, go far to remedy this. If it does not remedy it, then some other cure must be found for this primary defect; that is, the want of elementary education in the young previous to being employed. That the progress we notice is very slow must be admitted. The social elevation of a class of men engaged in such uncouth labours, the locality where they reside and the dark places where they labour being so far removed from the haunts of civilisation, so far from anything like refinement, must be a very difficult task indeed. But the more general dissemination of cheap literature of a sound and practical kind has also much tended to advance them. As a proof of the gradual advance we speak of, we need only to point to the establishment of literary institutions, which are rapidly spreading over the coal districts. Those societies are, no doubt, a result of this increased intelligence, and they may be made use of to accelerate the movement prodigiously. Many of the annual gatherings of these societies have been held lately, among the most important being those at Killingworth, Marley Hill, Netherton, and Amfield Plain, the two latter being new societies. Generally, it would appear from their reports, the societies have been tolerably successful, but it must not be supposed that they receive the support from the working men which they deserve. This apathy, however, will be overcome by perseverance, and, as we noticed before, the education of the young previous to being employed. If in connection with the societies arrangements could be made for the delivery of lectures at stated intervals during the winter, we venture to assert that it would add vastly to their influence. If those lectures were to consist of popular subjects, bearing upon the pursuits of the members and inhabitants, either in a general or particular sense, great good might be effected. Many of the objects aimed at by mining schools might, we fancy, be effected by means of *classes*, and lectures in connection with the colliery and other literary institutes. Some further remarks on this subject shall be made in next week's letter.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

AUG. 29.—The continued fine weather is exercising a very beneficial influence upon trade. The feeling at the weekly exchanges in Wolverhampton and Birmingham is decidedly more cheerful, and there is no doubt that there are more orders for Finished Iron, and that all parties are in better spirits with regard to the future. The American civil war is the one great blot on a fair prospect; but even on this question the conviction is growing that those who—as we have consistently done—have contended that the conquest of one important section of the States by the other is impossible, are right; and this is being so clearly demonstrated that ere long a party will arise in the Northern States who will insist upon any attempts being made to close the strife by a compromise. Pig Iron is selling more freely, and prices are firmer, without, however, any prospects of an advance for the present. In the Hardware Trades there is a steady improvement. All accounts concur in stating that the shopkeepers have allowed their stocks to become extremely low, and they are now beginning to order. The advance in the price of tin, advised to-day, is an evidence of a change for the better in the prospects of trade, although probable the lower rates of discount have something to do with it. In the Japan trade, and also in the lock trade, there are decidedly more orders; and generally there are indications that the tide is turning.

In North Staffordshire some of the colliers are out on strike, the contest having in one case extended over many weeks. The ironmasters in the district gave notice of a general reduction of wages there on Saturday last.

Those interested in the progress of iron making in Wiltshire will be glad to learn that the Seend Iron Company have at length obtained subscriptions for the requisite amount of capital for carrying on their operations. Much importance is attached to the influence of Mr. Gooch and Sir R. W. Carden as members of the board of directors, and it is confidently hoped that the operations of the company will henceforth be free from all impediment. The contract for the new works is not yet closed, but it is understood that the blast-engine is likely to be supplied by a Bilston builder. The interest attaching to the progress of the Seend Works is more extensive than would at first sight appear, for the amount of success achieved by the Seend Company will do much to enable capitalists to judge of the profit of smelting ore raised far away from the fuel with which it is smelted. The Seend deposit is, it is true, only an isolated bunch, but if it can be profitably smelted it will afford hopes to the owners of the numerous and

of the nitrate solution, it should be previously washed with a thin solution of gum, other suitable substance, and then dried before applying the solution of the nitrate.

THE WEST MERLYN MINING COMPANY (LIMITED),

FLINTSHIRE, NORTH WALES.

Capital £2000. In shares of £5 each.

BANKERS—The National Provincial Bank of England (Holywell Branch).

SECRETARY—Mr. E. J. Davies, Holywell.

The capital is divided into 400 shares of £5 each. £2 10s. per share, to be paid to the bankers previous to the application for the shares, and the residue as required, not exceeding 10s. per share per month.

The company have been established for getting, raising, and vending, by themselves, or by their sub-lessees, or agents, the lead ore under 124 acres of land, in the parish of Whitford, in the county of Flint, by virtue of a lease granted by the Marquis of Westminster, for a term of twenty-one years from the 15th November, 1860, at the royalty of 20s. per ton.

The mines are distant about three miles from Holywell, and are called the West Merlyn Mines.

Attached to the mines are an office and store-room recently erected, and a smith and carpenter's shop, and there are on the premises, tools and implements for prosecuting the works. The lease, buildings, and plant, have been purchased for £600, £300 of which only will have to be paid, as the vendors have agreed to take the other £300 in paid-up shares, so that, with that exception, the whole subscribed capital will be employed in forming the company and developing the mines.

The sett is supposed to contain the Orsedd, the Tyman, and the Lloc, the Merlyn, and the two Holloway lodes, some of which have been partially worked, and proved very successful; and there is every reason to believe that large quantities of lead may be obtained at a very moderate outlay by economical and skillful management.

From the Holloway and parallel lodes, at a depth of twenty-five yards from the surface, about 10 tons of lead were sold on the ticketing-day at Holywell, on the 8th of August, 1861, at £12 10s. 6d. per ton. At this sale, 376 tons of lead were disposed of, and that from the West Merlyn Mine fetched a higher price than any of the rest, except a small lot of 45 tons.

Each shareholder can in no event become liable beyond the amount of his shares. Application for shares may be made in the form annexed, addressed to the secretary, Mr. E. J. Davies, Flintshire Overseer office, Holywell.

THE WEST MERLYN MINING COMPANY (LIMITED).

Capital £2000. Shares, £5 each.

GENTLEMEN.—I request you will allot to me shares of £5 each, of the West Merlyn Mining Company (Limited), on the terms of the annexed prospectus, and I hereby agree to accept the same, or any less number that you may allot to me, and to pay the calls thereon. I have paid your bankers £ deposit thereon, for which I send you their receipt at foot.

To the West Merlyn Mining Company (Limited).

NATIONAL PROVINCIAL BANK OF ENGLAND (HOLYWELL BRANCH).

Received of _____, the sum of £ _____, on account of the West Merlyn Mining Company (Limited).

£ _____ For the National Provincial Bank of England (Holywell Branch),

THE CENTRAL SNAILBEACH MINING COMPANY (LIMITED).

Capital £10,000, in 10,000 shares of £1 each.

Deposit, 2s. 6d. per share, payable at Messrs. Hockley and Co., Bankers, Shrewsbury, upon application, which will be returned if no allotment be made to the applicant. For detailed prospectus, see Mining Journal of July 27, p. 490; and of the 31st inst., p. 502, for a copy of the report upon the sett, by Messrs. Phillips and Darlington.

The following communication has since been received from John Evans, for upwards of 40 years employed in the Snailbeach Mine, and now one of its resident captains; also from Mr. David Davies, for more than 20 years connected with the same mine, and now its resident practical and civil engineer:—

Snailbeach Mine, Ministerly, Aug. 20, 1861.—DEAR SIR: Since the publication of the report dated 13th ult., of Messrs. Phillips and Darlington, upon the Central Snailbeach mining sett, we have, at your request, carefully considered whether, from our practical knowledge of the workings of the Snailbeach Mine, especially its western drivings, we can point out the actual strike of the Snailbeach main lode. We are now convinced that the strong vein, delineated in the south-eastern boundary of the plan of the Central Snailbeach sett, is none other than the champion, or main lode of this mine. In Crow's Nest level, where it appears, we find it to be similar in all respects to the western drivings of this mine, and its underlie there, as in this, to the depth of 150 yards will be towards the north, with subsequently a slight change from north to south; in fact, in this mine the lode becomes nearly vertical, so much so that our opinion is a shaft may be sunk 500 yards, and yet the lode will be within the Central Snailbeach sett.

To S. Harley Kough, Esq.

JOHN EVANS, DAVID DAVIES.

Prospectuses, copies of the reports, and plans of the sett, with further information, may be obtained from Mr. J. M. DAVIES, or Mr. RICHARD WARDMAN, all of Snailbeach, Shropshire; Messrs. PHILLIPS and DARLINGTON, 26, Gresham-street, London; or from the undersigned, to whom all applications for shares are to be made. Early applications are requested.

August, 1861. SAMUEL HARLEY KOUGH, Shrewsbury and Church Stretton, solicitor to the promoters.

DODDS' IRON AND STEEL PATENT LICENSING COMPANY (LIMITED).

This company is PREPARED to GRANT LICENSES on moderate terms for the USE of their PATENT for STEELING RAILS, POINTS, CROSSINGS, MACHINERY, and EVERY DESCRIPTION of IRONWORK.

The process, which is exceedingly reasonable in cost, and gives the most extraordinary durability to the material, has been highly approved of by the leading gentlemen, firms, and companies, several of whom have extensively adopted the valuable improvement:—

ROBERT STEPHENSON, Esq.

JOHN BOURNE, Esq.

J. PERRING, Esq.

THOS. E. HARRISON, Esq.

THE GREAT INDIAN PENINSULA RAILWAY COMPANY.

THE NORTH-EASTERN RAILWAY COMPANY.

Messrs. STEPHENSON and CO.

THE EAST LANCASHIRE RAILWAY COMPANY.

THE GREAT NORTHERN RAILWAY COMPANY.

THE MIDLAND RAILWAY COMPANY.

THE METROPOLITAN RAILWAY COMPANY have ordered a large quantity of rails by this process.

THE FOLLOWING FIRMS are PREPARED to EXECUTE ORDERS under the company's patent:—

Messrs. S. BEALE and CO., PARK GATE, ROTHERHAM.

Messrs. DODDS and SON, ROTHERHAM.

Messrs. LOSH, WILSON, and BELL, NEWCASTLE-ON-TYNE.

THE EBBW VALE COMPANY, SOUTH WALES.

Messrs. LEVICK and SIMPSON, NEWPORT, MONMOUTHSHIRE.

Messrs. LLOYD, FOSTERS, and CO., WEDNESBURY.

THE ISCA FOUNDRY COMPANY, NEWPORT, MONMOUTHSHIRE.

Applications for Licenses can be made to R. Cooke, Esq., at the company's offices, No. 7, Sise-lane, London, E.C., where also testimonials and other information may be obtained.

THE LONDON AND PROVINCIAL AGRICULTURAL COMPANY (LIMITED).

CHIEF OFFICES AND DEPOT.—40, MARK LANE, LONDON.

ALBERT WORKS, STRANGWAYS, MANCHESTER.

This company, having obtained the established business of the late Messrs. Thomas Retigan and Co. on most beneficial terms, will be PREPARED to SUPPLY, on and after the 1st of September:—

THE ROYAL PATENT CAKE FOR CATTLE, at £12 10s. 0 p. per ton.

THE COMPOUND FEEDING MEAL, at 15 15s. 0 p. per ton.

THE ORIGINAL ECONOMIC FOOD FOR CATTLE, at 1 10s. 0 p. cwt.

And FIRST-CLASS MANURES at ADVANTAGEOUS PRICES.

These celebrated and reliable productions will be manufactured on an extended scale by this company, at the above reduced and legitimate prices; and the public are confidently invited to participate in the lucrative return that must inevitably be rendered from the increasing operations of a business which is already established, highly profitable, and partially patented.

Shares, £1 each; 10s. payable on allotment; for which immediate application is requested, as the list will close shortly.

Full particulars, prospectuses, and share application forms may be had from the company's agents in each district; the bankers, the London and County Bank, Threadneedle-street, London; the auditors, Messrs. COOPER, BROTHERS, and Co., 13, George-street, Mansion House, London; the brokers, F. EVERETT, Esq., 17 and 18, Royal Exchange, London; and W. POUNTNEY, Esq., Royal Exchange, Manchester; and from the secretary, at the offices.

* Applications for agencies in unrepresented districts will be entertained.

ALBERT AND MEDICAL LIFE ASSURANCE, 7, WATERLOO PLACE, PALL MALL, LONDON, S. W.

ESTABLISHED 1838.

The business of the Medical, Invalid, and General Life Assurance Society having been amalgamated with the Albert Life Assurance Company, the united business will henceforth be carried on under the above title.

Accumulated fund exceeds £200,000

Subscribed capital 447,180

Paid-up capital 137,000

Annual income from life premiums, upwards of 220,000

The new business is now progressing at the rate of more than £25,000 per annum.

From Prof. De Morgan's report upon the last valuation of liabilities (end of 1858), and the statements of accounts, it appeared at that time that the surplus in favour of the Albert business alone, after providing for every liability, was £192,925 2s. 11d.

HENRY WILLIAM SMITH, Actuary.

C. DOUGLAS SINGER, Sec.

LAKE SUPERIOR, U.S.—MR. G. W. HAMBLEN, Post Master,

Nagawega Post-office, Marquette County, Lake Superior, U.S., has opened an office as above, for the purpose of supplying mineralogical specimens generally, but more particularly such as are peculiar to the district, to museums and collectors throughout the world.

From his acquaintance with the different localities on the Lake, and with mining captains, he has facilities for collecting minerals, also for procuring the rarer sorts. Residing in the centre of the iron district, Mr. Hamblen can furnish specimens of ores of great beauty as cabinet specimens, of which the mammillary and stalactitic forms of hematite are worthy a place in any cabinet. He can also supply specimens of native copper and silver, with the accompanying minerals, many of which occur as crystals, forming rare objects of interest to the collector. Collections made up of all sizes and states of completeness, from the value of \$25 (or £5 sterling) to \$200. Letters of enquiry or conveying orders must be post paid.—P.S.—On receipt of £5 sterling Mr. Hamblen will forward a set of iron specimens; also, native copper and silver.

Crystals as follows will be supplied at from \$2 to \$4 each:—Quartz, calc spar (Dog Tooth and other varieties), epidote, greenstone, prehnite with copper, black oxide copper, analcime, chlorastrolite (found only at Isle Royale), native copper (crystallized), calc spar (with radiated crystals), ripple marked quartz (from the metamorphic strata), and a large variety of others illustrative of the geology and mineralogy of this part of the world.

On account of convenience of remittance, the smallest collection which can be forwarded will be \$35 (or £5 sterling).

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN THE MATTER OF THE ST. AUBYN MINERAL COMPANY (LIMITED), and in the MATTER OF THE JOINT-STOCK COMPANIES ACTS, 1856-57.—By direction of His Honour the Vice-Warden of the said Stannaries, notice is hereby given, that the Registrar of the said Court will, at his office, situate at Truro, in the county of Cornwall, on Friday, the 6th day of September next, at Eleven o'clock in the forenoon precisely, PROCEED TO SETTLE THE LIST OF CONTRIBUTORIES OF this company, and that after such list shall have been settled no party affected thereby will be allowed to dispute the same without leave of the said Court first had and obtained.

Dated Registrar's Office, Truro, this 23rd day of August, 1861.

TO CONTRACTORS, COLLIERY PROPRIETORS, AND OTHERS.

IMPORTANT SALE OF CONTRACTORS' PLANT AND MATERIALS, LATELY USED BY Messrs. Tredwell in MAKING THE NEW DOCKS, SWANSEA.

MR. JOHN M. LEEDER has been instructed by Messrs. Tredwell to OFFER, BY PUBLIC AUCTION, on Tuesday, the 3rd day of September, 1861, on the West Bank of the South Docks, at eleven o'clock in the forenoon, the following VALUABLE ARTICLES:—Mortar mill, with pans, rollers, and shafting; two ditto; two wrought iron drums for winding, one wrought iron water tank, four wrought iron skops, patent brick making machine, in good working order (by Clayton); eight earth wagons, wagon wheels and axles, piling engines, monkeys, road wagon, on 6 in. wheels (quite new); timber carriage on 6 in. wheels, two pair of timber wheels, patent weighing machine with weights complete, twelve one and two-horse carts, on 4 in. and 6 in. wheels, pair of 18 in. pumps, with shafting, securing, and 70 ft. of piping; pair of 9 in. pumps, with shafting, securing, and 40 ft. of piping; one 12 in. pump, with shafting, and 38 ft. of piping; one 6 in. ditto ditto, with 30 ft. of piping; three small hand pumps, one chain pump, force pump for engine, cylinder, gravel screens, pulley blocks, smiths' tools, anvils, bellows, engine fittings, bolts, chains, nails, and spikes, winding gear, with shaft, spur, and pinion wheels; sinking tackle, with jack rollers, skops, &c.; eleven sets of cart harness, scrap iron, and a large lot of shovels, corn sacks, carpenter's bench, screws; and many other valuable articles too numerous to mention. Office furniture, comprising one large chest of drawers, bookcase, copying press, two tables, two drawing boards, fender and fire-irons, blinds, &c., &c.

For further particulars, apply to J. M. LEEDER, auctioneer, land, house, and estate agent, 242, High-street, Swansea.

RUAEN, DENBIGHSHIRE.

SALE OF VALUABLE LANDS, COAL FIELD, AND SHARE OF TITHE RENT CHARGE.

MR. JOHNSON WILL SELL, BY AUCTION, at the Wynnstay Arms Hotel, Ruabon, on Friday, the 6th September next, at Five o'clock in the afternoon (unless previously disposed of by private treaty, of which due notice will be given), subject to conditions to be produced at the time of sale, and in the following or such other lots as shall then and there be determined upon:—

LOT 1.—All that MESSUAGE or TENEMENT, FARM, LANDS, AND PREMISES, called TY-MAWR, situate in the township of Goed Christionydd, in the parish of Ruabon, in the county of Denbigh, containing by admeasurement 41 A. 0 R. 12 P., or thereabouts, together with the VALUABLE SEAMS of COAL and MINERALS thereunder, now in the occupation of John Dicken, Esq.

LOT 2.—All those THREE SUBSTANTIAL MESSUAGES, or COTTAGES and GARDENS, situate near to the said farm, at Cefn Iychan, in the aforesaid township, in the several occupations of Robert Wright, William Jones, and Mary Edwards. These cottages let well, and now realise, at a very low rental, £11 18s. per annum.

LOT 3.—All that ONE UNDIVIDED MOETTY, or equal HALF PART or SHARE of the aggregate to the annual sum of £42, payable to the said John Morris and Mr. Nathaniel Jones. This lot will be offered separately or jointly with Ty-Mawr (Lot 1), as may be agreed upon at the time of sale.

The above tenement and lands contain the best seams of the Ruabon coal field, which require only an outlay of some capital to render the working thereof very profitable, and yield a good return. The estate is in immediate proximity to the Shrewbury and Chester Railway, which runs on one side parallel with it, and close to the homestead. The farm and minerals will be offered in one lot, or separately, as may be determined at the sale.

Further particulars to be obtained from JOHN MORRIS, Esq., Spencer Villa, Leeds; at the offices of Mr. WYATT, solicitor, Wrexham, where a map of the estate may be inspected; or from the auctioneer.

SHARES IN THE NORTH WHEAL BASSET COPPER AND TIN MINE, CORNWALL.

MR. MARSH has received instructions to include in his NEXT MONTHLY PERIODICAL SALE OF REVERSIONS, POLICIES, &c., appointed to take place at the Mart, on Thursday, September 5, at One o'clock punctually, in Thirty Lots, ONE HUNDRED £20 PREFERENCE SHARES (fully paid up), and FIVE HUNDRED ORIGINAL £20 SHARES (fully paid up), in the STAINES, WORKINGHAM, and WOKING JUNCTION RAILWAY.

Particulars and conditions of sale may be obtained at the Mart; of Messrs. MURRAY, SON, and HUTCHIN, solicitors, 11, Birch-in-lane, Cornhill; of Messrs. PEARCE, PHILLIPS, WINKWORTH, and PEARCE, solicitors, 66, Gresham House, Old Broad-street; and at Mr. MARSH's offices, Charlotte-row, Mansion House.

RE LAURENCE AND MORTIMORE'S BANKRUPTCY.

STAINES, WORKINGHAM, and WOKING JUNCTION RAILWAY.

MR. MARSH WILL SELL, BY AUCTION, by order of the assignees and mortgagees, at the Mart, on Thursday next, September 5, at One o'clock punctually, in Thirty Lots, ONE HUNDRED £20 PREFERENCE SHARES (fully paid up), and FIVE HUNDRED ORIGINAL £20 SHARES (fully paid up), in the STAINES, WORKINGHAM, and WOKING JUNCTION RAILWAY.

Particulars and conditions of sale may be obtained at the Mart; of Messrs. MURRAY, SON, and HUTCHIN, solicitors, 11, Birch-in-lane, Cornhill; of Messrs. PEARCE, PHILLIPS, WINKWORTH, and PEARCE, solicitors, 66, Gresham House, Old Broad-street; and at Mr. MARSH's offices, Charlotte-row, Mansion House.

SALE OF VALUABLE FREEHOLD ESTATE.

IRONWORKS and STOCK IN TRADE, &c., at BECK HOLE, near GROSOMONT, and about eight miles from WHITBY, in YORKSHIRE.

MESSRS. HEPPER and SON WILL SELL, BY AUCTION, on Wednesday, the 18th day of September, 1861, at Two o'clock in the afternoon, at the house of Mr. Gliddey, the White Horse Hotel, in Boar-lane, in Leeds, subject to such conditions as shall be produced at the time and place of sale.

All the FREEHOLD ESTATE, consisting of about TWENTY-SIX and a HALF ACRES of LAND, and THIRTY THREE NEW and SUBSTANTIAL STONE BUILT COTTAGES, several other cottages and dwelling-houses, with the OUTBUILDINGS and APPURTENANCES.

Also, all those EXTENSIVE IRONWORKS, for the manufacture of iron, consisting of BLAST FURNACES, iron bolsters, worked by pumps; hot air ovens, TWO STEAM ENGINES, BOILERS, ENGINE and BOILER HOUSES, weigh house, blacksmiths', carpenters', and other workshops, offices and premises, together with the commonable and other rights incident to the estate, and all other the real estate, the property of the Whitby Iron Company (Limited). The purchasers of the estate will be required also to purchase the stock in trade, at a price to be determined in the manner set forth in the conditions of sale, the following, viz:—

All the STOCK IN TRADE and EFFECTS of the WHITBY IRON COMPANY (LIMITED), in and about the above-mentioned premises, consisting of about THIRTY EIGHT TONS of PIG-IRON, upwards of EIGHT THOUSAND TONS of CALCINED IRONSTONE, a quantity of wood, timber, bricks, water-wheel, coals, slack, coke, hematite ore, iron slag wares, iron barrows, wrought-iron, wood bridges, sleepers, bridge rails, and castings, drain tubes, utensils, implements, stock of hay, cattle, and other farming produce, office furniture and utensils, and all other effects and property whatsoever in and upon the premises of which the Whitby Iron Company (Limited) are owners.

Further particulars of the estates and premises, and of the effects, will be given by catalogue, distinguishing those to be sold by auction and those to be purchased by valuation, and may be had, price sixpence, on application to the auctioneers, in Trinity-street, in Leeds aforesaid, on and after Monday, the 9th day of September, 1861.

The premises are situate at or near to Beck Hole and Grosomont, about eight miles from Whitby, in the North Riding of the county of York, are contiguous to the North-Eastern Railway, and the station there, with sidings to communicate, are well supplied with water, abundant with quarries of stone, beds of iron ore, and are in immediate contiguity to other large and valuable beds of iron ore, and the whole are advantageously located for carrying on an extensive manufacture of iron.

For further information, apply to BARR, NELSON, and BARR, solicitors, Leeds.

MESSRS. FISHER and SON WILL SELL, BY AUCTION, at the house of Mrs. Cork, the Swan Hotel, in Bolton-le-Moors, in the county of Lancashire, on Wednesday, the 25th day of September, 1861, at Six o'clock in the evening, subject to such conditions as shall be then produced, the EXTENSIVE, VALUABLE, and WELL ESTABLISHED ENGINEERING, IRON FOUNDRY, and MILL-WRIGHT WORKS, known as the UNION FOUNDRY, in BOLTON-LE-MOORS, in the county of LANCASTER.

The land occupied by these works is freehold of inheritance, and contains nearly 4 statute acres, situate in the centre of the town of Bolton, is bounded on the east, south, and part of the north sides by wide and excellent streets, and the London and North-Western Railway extends along and adjoins to the whole of the west side thereof, and communicates with lines of railway at a value gauge laid down through the works.

The BUILDINGS are in good condition, and the works are laid out and adapted throughout to the present requirements of trade.

Several of the WORKSHOPS have been recently entirely rebuilt, and the establishment and working plant have been greatly improved and remodelled during the last few years.

The BUILDINGS comprise large erecting, boring, planing, turning, fitting, and other shops; loam, green sand and brass foundries, boiler shops, forge, smithies, pattern rooms, &c.

The COUNTING-HOUSES and DRAWING OFFICES are large, commodious, well built, of recent erection, and replete with all necessary fixtures, and office furniture and apparatus.

The MANAGER'S HOUSE (adjoining part of the north side of the works) contains a spacious hall, two parlours, two kitchens, five bedrooms, and other conveniences; there are two houses for workmen, and another house for the watch-keeper.

The OUTHOUSING comprises a coach-house, saddle-house, stabling for 12 horses, and all other requisite out-buildings and appurtenances.

The WORKING PLANT consists of FOUR STEAM ENGINES and BOILERS for driving same, with turning lathes, planing, boring, slotting, screwing, drilling, grooving, and wheel-cutting machines, cranes, capstols, moulding boxes, boiler-making machines, and tools, fans, and hearths, weighing machines, lathes, gas, steam, and water pipes, railways, and all other requisite machinery, tools, implements, and utensils required in a large engineering and millwright establishment.

The PATTERNS include above 1100 of spur, mitre, and bevel wheels, a large assortment of stationary, portable, and marine engines, water-wheels, hydraulic presses, dredging machines, gas apparatus, cranes, barges, sugar mills, sugar pans, saw mills, pulleys, and general millwork, bleachers, printers, colliery, and other work connected with the requirements of the manufacturing businesses of the district.

The WORKS are adapted for the employment of from 600 to 800 men, and have been in existence above 60 years.

The property may be viewed on application to JOHN HOWARD, Esq., on the premises, and further particulars may be obtained from him, and on application to Messrs. ROBERT and ARTHUR FISHER, solicitors, Bolton, at whose offices a plan of the premises may be seen.

In Chancery.

TO BE SOLD, BY AUCTION, pursuant to an Order of the High Court of Chancery, made in a Cause of FORMAN v. HARVEY, with the approval of the Vice-Chancellor Sir John Stuart, a LEASEHOLD MINE, called WHEAL ANNA, producing TIN and COPPER ORE, with VALUABLE PLANT attached, situate in St. Hilary, in the county of Cornwall, in One Lot, by Mr. JOHN LITTLE, the person appointed by the said Judge, at the Auction Mart, Bartholomew-lane, London, on Wednesday, the 11th day of September, 1861, at Twelve of the clock at noon.

Particulars and conditions of sale may be had gratis of Messrs. OLIVERSON, LAVIE, and PEACHEY, solicitors, 8, Frederick's-place, Old Jewry, London; Messrs. DAWKINS and FRASER, solicitors, 26, Craven-street, Chancery-cross, London; Messrs. WOODWARD, GREATHEAD, and BLAKE, solicitors, South Sea House, Threadneedle-street, London; JOHN TAYLOR, Esq., solicitor, 7, Gray's Inn-square, Holborn, London; at the Auction Mart; at the Hotel, Marlborough, Cornwall; and of the auctioneer, at his offices, in Redruth, Cornwall.

ALFRED HALL, Chief Clerk.

OLIVERSON, LAVIE, and PEACHEY, Plaintiff's Solicitors.

TO BE SOLED, BY AUCTION, on Tuesday, the 10th Sept. next, by Two o'clock in the afternoon, on the mine, in the parish of Crowan, Cornwall, in One Lot, NEW WHEAL HENDER MINE and MATERIALS, consisting of one 50 in. cylinder ENGINE, with BOILER about 11 tons; capstan, shears, 2 balance and 1 angle bolt; 230 fms. of wood rods, 7 by 6 in., with plates, bolts, &c.; 16 9 ft. 11 in. pumps, workings and clack seat pieces to match; 7 9 ft. 11 in. ditto; 3 9 ft. 8 in. and 9 in. pumps; 2 horse whips, chain ropes, and ribbles; 55 fms. of ladder, iron axedwood bars; 3 clack-terns, castings and dividings; smiths' bellows, anvils, smiths and miners' tools, together with the account-house furniture, and a large quantity of timber, iron, and other useful articles.

For a view of the same, apply to the captain on the mine; and for further particulars, to Capt. WILLIAM RICHARDS, Bank House, Redruth.—Dated August 28, 1861.

WHEAL MARY GREAT CONSOLS MINE.

TO BE SOLED, BY TENDER, in One Lot, all that VALUABLE COPPER MINE, known as the WHEAL MARY GREAT CONSOLS MINE, situate at or near ST. NEOT, LISKEARD, together with the EXTENSIVE PLANT, including the valuable 60 in. cylinder PUMPING ENGINE, WATER WHEELS, MACHINERY, and all necessary materials required for the further prosecution of the mine.

And also all the INTEREST in the LEASES granted to the present company for the purpose of getting ore under the lands of the Rev. James Glencross, called the AMBROSE LAKE SETT; James Michell, Esq., called the LAMPEN SETT; and Messrs. Bolitho and Foster, called the HIGHER and LOWER COOMBE HOUSE SETT.

The large quantity of ore which has been raised during the last 18 months, and the present healthy appearance of the mine, will be no small inducement to parties desirous to meet with a promising speculation.

Tenders will be received by JOHN BROWN, land and mineral agent, Rose Hill, Chesterfield, Derbyshire.—August 28, 1861.

BELL BROTHERS beg to intimate that, having become SOLE LICENSEES in the United Kingdom of Prof. DEVILLE'S METHOD OF PRODUCING PURE ALUMINIUM, they are now in a POSITION to SUPPLY, from their works here, both this metal and its compound with copper, known under the name of ALUMINIUM BRONZE.—Newcastle-on-Tyne, September, 1860.

FESTINIOG, NORTH WALES.—THE LEASE OF A SLATE QUARRY in the above locality is TO BE DISPOSED OF.

It includes upwards of SIX HUNDRED ACRES of GROUND, and by three levels of 75, 50, and 30 yards respectively has been PROVED to have FOUR LARGE VEINS of SLATE ROCK of SLENDID QUALITY and COLOUR. The ground affords unusual facilities for the development of the works, is situate within 1½ mile of the Festiniog and Portmadoc Railway, and is unquestionably a very valuable property. Want of capital is the cause of sale. All applications must be accompanied with a reference to a London bank, or they will not be attended to.—For particulars, apply to W. DAVIES, Festiniog, via Carnarvon, North Wales.

NEW COLLIERY, NAILSEA, NEAR BRISTOL.

FOR SALE, BY PRIVATE CONTRACT, THE WHOLE OF THE PLANT and MATERIALS at the above colliery, comprising:—

ONE HIGH PRESSURE DIRECT ACTING PUMPING ENGINE, cylinder 45 in. in diameter, and 10 ft. stroke.

BEDFORD IRONWORKS, TAVISTOCK.

NICHOLLS, WILLIAMS, AND CO. have generally a GOOD STOCK OF SECOND-HAND MINING MATERIALS FOR SALE, including ironwork for a water-wheel, 40 ft. diameter, 2½ ft. breast. They also MANUFACTURE STEAM ENGINES of every description on the newest principle. Castings and wrought-iron work made at the shortest notice. Machinery sent to all parts of the world. Steam boilers and chains warranted of the best description.

HORIZONTAL STEAM ENGINES FOR SALE, one each of 14, 17, and 29 in. cylinders, 36 in. stroke, quite new. They are especially adapted for mining purposes, and are very substantially made. Also, several of from 6 to 8 horse power. Apply to Messrs. E. PAGE AND CO., Engineers, Laurence Pountney-place, Laurence Pountney-hill, Cannon-street, E.C.

DAVEY'S PATENT BLASTING POWDER, MANUFACTURED BY DAVEY BROTHERS AND CO., NANCEKUKU POWDER WORKS, TUCKINGMILL, CORNWALL.

This blasting powder possesses the following advantages over every other in use:—ITS COMBUSTION IS SLOWER AND MORE PERFECT when confined in the hole, PRODUCES LESS SMOKE, IS LESS DANGEROUS, and it generally BURSTS MORE ROCK with a CHARGE OCCUPYING THE SAME SPACE, BUT WEIGHING FROM TWENTY TO THIRTY PER CENT. LESS than other powder, EFFECTING AN IMPORTANT SAVING.

DAVEY BROTHERS AND CO. beg to state that this powder is specially made for blasting, and from its slow combustion is not adapted for projectiles. They would, therefore, caution consumers against the efforts of interested parties to put it to a fallacious trial, by firing a ball from a mortar, which is no test of its explosive force when confined.

BAILEY'S PATENT STEAM GAUGE.—This truly valuable invention is most undoubtedly the only gauge ever invented not affected by those atmospheric changes and many other evil influences, which are the bane of all spring, mercurial, and compressed air gauges.

The grand principle of the gauge being founded upon that sublime law of nature, "GRAVITY," which, like all other natural laws, is unerring and unchangeable—it must continue to indicate correctly to an indefinite period of time.

After most critical trials and examinations by some of the most eminent locomotive and stationary engineers, mining and manufacturing companies in this kingdom, it is pronounced by them to be "THE ONLY TRULY INDICATING GAUGE NOW IN EXISTENCE."

HEAD OFFICES, 30, COOPER STREET, MANCHESTER, Mr. WM. TATE, Sole Wholesale Agent.

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On Wednesday, the 27th of February, a series of EXPERIMENTS on WIRE-ROPE took place at the Corporation Testing Works, King's Dock. The specimens tested were manufactured by the well-known firm of A. J. HUTCHINGS and Co., of Millwall, London, the Contractors to the Lords of the Admiralty and various foreign Governments, the character of whose rope is so well known in this country, as well as all parts of the Continent.

Capt. Ducraft, of H.M.S. *Hastings*, and a number of other gentlemen connected with shipping, were present to witness the experiments, all of which were considered highly satisfactory, and in every respect sustained the reputation of the manufacturers. The following are the results of the experiments:—

An 8 in. rope bore 70 tons WITHOUT BREAKING.

Circumference and breaking strain.

2½ tons 103½ tons 3½ tons 14 tons 3 tons 27 tons 3½ tons 29 tons 3½ tons 32½ tons 4½ tons 45½ tons

N.B.—The 2½, 3, and 4 in. ropes were the sizes actually tested. The remaining sizes and strains are comparative.

THE ABOVE ROPES ARE FOR COLLIERY USE.

Sizes. Hutchings and Co.'s wire-ropes for ships' rigging. Tested Feb. 27, 1861.

Newall and Co.'s Test of Oct. 29, 1860.

Garnock, Bibby, and Co.'s Test of Oct. 29, 1860.

2 5 tons 15 cwt.

3½ 11 " 14 "

3½ 16 " 10 "

3½ 22 " 8 "

3½ 23 " 10 "

4 29 " 10 "

4½ 37 " 15 "

N.B.—The 2, 3½, and 4 in. ropes were the actual sizes tested. The remaining sizes and strains are comparative.

The above tests certified by Mr. McDonald, the Superintendent of the Corporation Testing Works, Liverpool.

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JOHN STEPHENS AND SON, HEMP AND WIRE-ROPE WORKS, ASHFIELD, FALMOUTH, CORNWALL.

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MESSRS. W. BRUNTON AND CO. have great pleasure in informing their customers and friends, and the mining community, that they have RESUMED MANUFACTURING, at their PENHALICK WORKS, POOL, near CAMBORNE, and are PREPARED as before to SUPPLY SAFETY FUSE of a QUALITY which CANNOT BE SURPASSED.

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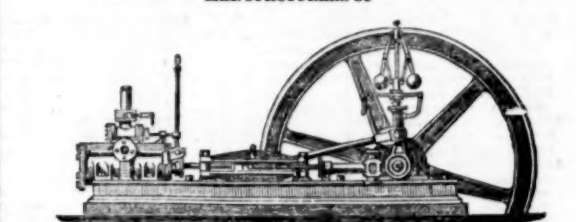
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240	Bosconan (tin), St. Just	20 10 0	60	June, 1861	
300	Botalack (tin), St. Just	91 0 0	240	June, 1861	
1000	Carbarn Cove (copper), Illogan	18 0 0	68	June, 1861	
200	Cornwall (tin), St. Just	3 10 0	13	June, 1861	
2000	Concorree (copper), Illogan	1 0 0	36s. 37s.	June, 1861	
2450	Cook's Kitchen (copper), Illogan	17 0 0	27 29	June, 1861	
12000	Copper Mines of England	25 0 0	25	June, 1861	
35000	Ditto (stock)	100 0 0	24	June, 1861	
1055	Craddock Moor (copper), St. Cleer	8 0 0	28	June, 1861	
867	Cwm Erwin (lead), Cardiganshire	7 10 0	16	June, 1861	
128	Cwmystwith (lead), Cardiganshire	0 0 0	240	June, 1861	
280	Dewent Mines (all-lead), Durham	60 0 0	180	June, 1861	
1024	Devon Gt. Con. (tin), Tavistock	1 0 0	355	June, 1861	
358	Dolcoath (copper), tin, Camborne	128 16 0	510	June, 1861	
512	East Bassett (copper), Redruth	29 10 0	72 1/2	June, 1861	
6144	East Caradon (copper), St. Cleer	2 14 6	25 1/2	June, 1861	
300	East Darnley (lead), Cardiganshire	32 0 0	67	June, 1861	
2048	East Looe (tin), Wendron	2 10 0	—	June, 1861	
1400	Eam Mining Co. (lead), Derbyshire	8 0 0	—	June, 1861	
4400	Fowey Consols (copper), Tywardreath	4 0 0	8	June, 1861	
3000	Frank Mills (lead), Devon	3 18 0	4 1/2	June, 1861	
6000	Great South Toluca (S.E.), Redruth	0 14 6	3 1/2	June, 1861	
1798	Great Wheel Fortune, Breage	18 0 0	12 1/2	June, 1861	
4908	Great Wh. Vor (tin), Helston	40 0 0	—	June, 1861	
1024	Herodasfoot (id.), near Liskeard	8 10 0	35 36	June, 1861	
1000	Hibernian Mine Company	92 6 2	—	June, 1861	
160	Levant (copper), tin, St. Just	2 10 0	95	June, 1861	
400	Liaburn (lead), Cardiganshire, Wales	18 15 0	125	June, 1861	
9000	Marke Valley (copper), Cardiganshire	4 10 0	10 10 1/2	June, 1861	
5000	Mendip Hills (lead), Somerset	8 15 0	10 10 1/2	June, 1861	
1800	Miners Mining Co. (L.), (id.), Wrexham	25 0 0	180	June, 1861	
9000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	14	June, 1861	
640	Mout Pleasant, Mold	4 0 0	25	June, 1861	
6000	New Birch Tor and Vitrifer Consols	1 6 0	2	June, 1861	
6000	North Downs (copper), Redruth	2 3 4	4 1/2	June, 1861	
1266	North Gribbler, Redruth	2 6 0	—	June, 1861	
6000	North Great Work, Breage	1 3 0	4 1/2	June, 1861	
5000	Orehead (lead), Flintshire	0 0 0	13	June, 1861	
6400	Par Consols (tin), St. Blazey	1 2 6	9 1/2	June, 1861	
200	Pargy Mines (copper), Anglesey	50 0 0	—	June, 1861	
200	Phanix (copper), tin, Llanfyllter	100 0 0	435	June, 1861	
1772	Pilberro (tin), St. Agnes	—	5	June, 1861	
1120	Providence (tin), Uney Lelant	10 6 7	35 37 1/2	June, 1861	
16	Rhosomere	50 0 0	—	June, 1861	
512	South Caradon (cop., St. Cleer)	1 5 0	305	June, 1861	
512	South Toluca (cop., Redruth, Cornwall)	8 0 0	—	June, 1861	
496	South West France, Illogan	18 15 0	130	June, 1861	
280	Spearhead Moor (tin), St. Just	31 7 9	45	June, 1861	
940	St. Ives Consols (tin), St. Ives	4 0 0	31	June, 1861	
6000	Tamar Con. (all-ld.), Beeralston	4 10 0	1 1/2	June, 1861	
6000	Tincroft (cop., tin), Pool, Illogan	9 0 0	5 1/2	June, 1861	
6000	Tolvadden (copper), Marazion	—	2 1/2	June, 1861	
672	Trellyn Consols (tin), St. Ives	11 10 0	12 1/2	June, 1861	
200	Trumpet Consols (tin), near Helston	57 10 0	100	June, 1861	
1024	Wendron Consols (tin), Wendron	11 13 0	12	June, 1861	
6000	West Bassett (copper), Illogan	1 10 0	16	June, 1861	
60	West Burton Hill (lead), Yorkshire	50 0 0	—	June, 1861	
1024	West Caradon (cop., Liskeard)	2 0 0	37 1/2	June, 1861	
256	West Darnall (copper), Gwennap	37 0 0	55	June, 1861	
6400	West Fowey Consols (tin and copper)	7 10 0	5	June, 1861	
400	W. Wh. Seton (cop., Camborne)	47 10 0	320 325	June, 1861	
512	Wheel Bassett (copper), Illogan	5 2 6	82 1/2	June, 1861	
256	Wheel Buller (cop., Redruth)	5 0 0	95	June, 1861	
600	Wheel Clifford (cop., Gwennap)	—	150	June, 1861	
9000	Wheel Falmouth and Sperris	2 5 0	8	June, 1861	
128	Wheel Friendship (copper), Devon	50 0 0	90	June, 1861	
512	Wheel Glyn (tin), Liskeard	3 10 0	18	June, 1861	
1024	Wheel Killy (tin), Uney Lelant	1 0 0	11	June, 1861	
4900	Wheel Ludcott (lead), St. Ives	2 10 8	3 1/2	June, 1861	
896	Wh. Margaret (tin), Uney Lelant	9 17 6	35 40	June, 1861	
100	Wheel Mary (tin), Lelant	36 2 6	440	June, 1861	
1024	Wh. Mary Ann (id.), Menheniot	8 10 0	9 10	June, 1861	
80	Wheel Owies, St. Just, Cornwall	70 0 0	800	June, 1861	
6000	Wicklow (copper), L., Wicklow	5 0 0	58 1/2	June, 1861	

* Dividends paid every two months. † Dividends paid every three months.

MINES WITH DIVIDENDS IN ABEYANCE.

700	Aberdovey (silver-lead), Merioneth	1 10 0	30	June, 1859
5120	Alfred Consols (cop.), Phillack	2 17 1	21s.	June, 1859
1200	Balldewidden (tin), St. Just	11 5 0	12s.	June, 1859
1200	Brightdale and Froggatt Grove, Derbyshire	3 0 0	3 1/2	June, 1859
200	Brynmor Hall (lead), Flintshire	15 10 0	17	June, 1859
2500	Central Miners (lead) [L. £5]	0 15 0	5 1/2	June, 1859
6000	Charlotte United, Fernanethnoe	2 3 2	1 1/2	June, 1859
2000	Collacomb (copper), Lamerton	5 5 0	12	June, 1859
256	Concorree (cop., tin), Camborne	20 0 0	60	June, 1859
256	Copper Hill (copper), Redruth	48 0 0	95	June, 1859
4076	Devon and Cornwall (copper)	4 12 6	6	June, 1859
672	Ding Dong (tin), Gwulva	30 2 6	19	June, 1859
18800	Drake Walls (tin), Calstock	2 1 0	16s.	June, 1859
2048	East Falmouth (all-ld.), Kenwyn	2 15 0	3 1/2	June, 1859
128	East Pool (tin), copper, Pool, Illogan	24 5 0	400	June, 1859
6000	General Mining Co. for Ireland (cop., lead)	4 0 0	5 1/2	June, 1859
486	Gribbler and St. Aubyn (cop.) [S.E.]	47 10 0	12	June, 1859
119	Great Work (tin), Gernoe	100 0 0	110	June, 1859
100	Harward United (lead), Flintshire	40 0 0	10	June, 1859
6000	Hingston Down Con. (cop.), Cal. [S.E.]	4 15 0	2	June, 1859
6000	Kelly Bray (lead, copper), Callington	4 0 0	1 1/2	June, 1859
20	Laxey Mining Company, Isle of Man	100 0 0	1200	June, 1859
470	Newtownards Mining Co., Co. Down	60 0 0	85	June, 1859
700	North Roakear (copper), Camborne	16 0 0	15 17	June, 1859
1024	Rosewarne and Herland United	11 10 0	3 1/2	June, 1859
512	Rosewarne United (cop., tin), Gwennap	6 4 2	20 1/2	June, 1859
19000	Sordridge Con. (cop.), Whitcomb [S.E.]	0 16 0	12s.	June, 1859
128	South Crinins (copper), St. Austell	19 0 0	285	June, 1859
20000	St. Day United (tin and cop.), Redruth	2 7 0	3 1/2	June, 1859
400	United Mines (copper), Gwennap	55 0 0	32 1/2	June, 1859
20000	Vale of Towry (lead), Carnarvon	0 13 6	6s.	June, 1859
1024	West Providence (tin), St. Ives	15 10 0	15	June, 1859
240	Wheel Ball (tin), St. Just	15 0 0	16	June, 1859
4096	Wheel Edward (cop., Calstock)	7 6 2	2 1/2	June, 1859
1024	Wheel Glyn (tin), Fernanethnoe	1 4 0	4	June, 1859
8000	Wheel Killy (tin), St. Agnes	4 16 6	3 1/2	June, 1859
845	Wheel Looe (tin), Wendron	33 0 0	7	June, 1859
1024	Wheel Mary (tin), copper	15 13 0	6	June, 1859
396	Wheel Redruth (tin), copper	55 0 0	70	June, 1859
1040	Wh. Trelawny (all-ld.), Liskeard	5 17 10	75 80	June, 1859
1024	Wheel Tremayne (tin), Gwennap	12 6 0	15	June, 1859
4096	Wheel Wrey Consols (lead), St. Ives	3 9 0	3 1/2	June, 1859

FOREIGN MINES.

2464	Burra Burra (cop.), South Australia	5 0 0	135	June, 1859
12000	Coburn Consols (cop.), Saba [S.E.]	40 0 0	35 37	June, 1859
10000	Colpo Mining Company, Chile [S.E.]	1 0 0	8	June, 1859
12000	East Indian Coal, Calcutta [S.E.]	10 0 0	10	June, 1859
70000	English and Australian [S.E.]	5 0 0	3 1/2	June, 1859
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	30 0 0	22 24	June, 1859
80000	Kapunda Mining Co., Australia [S.E.]	1 0 0	2 1/2	June, 1859
15000	Llanidloes (id.), Povo Ancho, Spain [S.E.]	3 0 0	7 1/2	June, 1859
10000	Llanidloes (id.), Povo Ancho, Spain [S.E.]	3 0 0	2	June, 1859
15000	Marquette and New Granada [S.E.]	1 0 0	1 1/2	June, 1859
100000	Port Phillip (all-ld.), Clunes [S.E.]	1 0 0	1 1/2	June, 1859
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	36 1/2	June, 1859
20000	West Canada Mining Company [L.]	1 0 0	1 1/2	June, 1859

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Quenningen (cop.) [L. £5]	4 10 0	3	June, 1853
10000	Gl. Barrier Lead, Min. Ac. N. Ze. [L. £5]	4 0 0	3 1/2	June, 1853
10000	Fontbasset (all-ld.), France [S.E.]	20 0 0	4	June, 1853
43174	Unit. Mexican (all-ld.), Mexico [S.E.]	28 5 0	5 1/2	June, 1853

NON-DIVIDEND FOREIGN MINES.

20000	Australian (copper), South Australia [S.E.]	7 6 1	—	Sept. 1858
70000	Bon Accord, South Australia (copper) [L. £1] [S.E.]	0 17 6	1 1/2	Dec. 1858
17000	Central American (silver) [L.]	5 0 0	8 1/2	Feb. 1859
40000	Clarendon (copper) [7000 £2 paid]	0 6 0	—	Jan. 1859
10000	Clarendon Consols (copper), Jamaica [S.E.]	0 17 6	—	Jan. 1859
70000	Dun Mountain (copper), New Zealand [L.] [S.E.]	10 0 0	8 1/2	—
30000	East Kongberg Native Silver Mining Co. of Norway [L. £5]	1 0 0	—	—
80000	Ellerslie and Bardowie, Jamaica	0 18 0	1 1/2	—
6000	English and Canadian Mining Company [L.]	5 0 0	—	—
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0	2 1/2	—
80000	Hope Northern (copper), South Australia [L. £5] [S.E.]	1 0 0	1 1/2	—
50000	Imperial Silver-lead and Copper Mining Co. [L.] Jamaica	25 0 0	—	—
30000	Lagunazo (sulphur, copper), Portugal [L. £5]	0 10 0	—	—
60000	New Granada (gold), South America [L.]	0 10 0	—	—
10000	New Grand Duchy of Baden (silver-lead)	1 0 0	—	—
60000	North Rhine Copper of South Australia [L.] [S.E.]	0 12 6	—	—
15000	Pachuca Silver Mining Company, Mexico [L.]	0 10 0	—	—
80000	Scottish Australian Mining Company [L.]	0 10 0	—	—
15000	South Europe Mining Company, Spain [L.]	3 0 0	—	—
120000	St. John's United (copper), lead, Newfoundland [L.]	0 10 0	—	—
45000	Victor Emanuel, Italy [L.] [30,000 Pref. Shares, 15,000 £1 pd.]	1 0 0	—	—
1000	Western Africa Malachite (copper)	110 0 0	—	—
12900	Wheel Eilen, South Australia [L. £5]	1 0 0	—	—
35425	Wheel Jamaica (copper)	1 0 0	—	—
60000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	—	—

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
4825	Abbeys Consols (id.), Cardigan	2 7 0	1	Nov. 1860	
1000	All-ry-Crib (lead) [L. £5]	2 8 0	2	Nov. 1861	
4000	All-ry-Meen (lead) [L. £1]	0 5 0	12s.	July, 1859	
10000	Angarrack (copper), Phillack	1 6 1	1 1/2	June, 1859	
1000	Ashbury United (cop., tin)	11 10 0	14 1/2	Mar. 1860	
10000	Bampfylde (copper), Devon	0 15 0	4	Aug. 1860	
4000	Bedford Consols (copper)	1 19 0	4s. 2s. 4s.	July, 1861	
2000	Berehaven (copper), Ireland	1 0 0	14	—	
7500	Bickleigh Vale Phoenix [L.]	2 0 0	2 1/2	—	
200	Bilkins (lead) [L. £20]	20 0 0	20	18 20	—
10000	Borlase Con. (tin), St. Just [L.]	1 0 0	—	—	
1248	Boscawell (tin), Penzance	6 5 0	8	—	
2280	Boscawell (tin), St. Austell	6 15 0	4	—	
160	Boscombe & Ballowall, St. Just	6 5 0	10	—	
123	Bowdland and Wheel Castle	32 0 0	—	—	
5000	Bowthorn (tin), Sancerre	1 0 0	1 1/2	—	
5000	Bottle Hill (tin), Plymouth	1 0 0	1	—	
12000	Bren Con. (tin), St. Ives [L. 30s.]	1 0 0	22s.	—	
5000	Bronfild (id.), Cardigan [L.]	2 0 0	4 1/2	—	
112	Bron-Haulog (id.), Denbigh	20 0 0	20	—	No call.
4000	Brookwood	1 5 0	3 1/2	—	Mar. 1861
1200	Brynafall [L.] [600 £1, 600 £5 pd.]	—	—	—	Apr. 1861
500	Bryn Gwlog (lead), Flint	4 0 0	27	24 26	Oct. 1859
2000	Bryntall, Llanidloes, Montgo	5 7 0	4	—	Aug. 1861
5450	Budnick Consols (tin), Perran	1 2 0	1 1/2	—	June, 1861
6380	Buller and Bassett Unit. (cop.)	3 5 0	1 1/2	—	June, 1860
2448	Bwlch (all-ld.), Cardiganshire	4 0 0	2 1/2	—	Nov. 1860
4000	Calstock Consols (copper)	5 10 0	6s.	—	Dec. 1860
916	Calvadnock, Wendron	18 0 0	7	—	Mar. 1861
1000	Camborne Consols (copper)	10 0 0	8	—	June, 1861
4000	Camborne Consols (copper)	10 0 0	8 1/2	15% 13% 9%	June, 1861
914	Cardon Cons. (cop.), St. Cleer	21 12 0	24	—	June, 1861
1090	Cardigan Consols [L. £10]	7 0 0	8 1/2	8 1/2	Mar. 1861
916	Cargoll (silver-lead), Newlyn	7 0 0	14	—	Sept. 1860
6000	Carm Camborne	0 7 0	13 1/2	13 1/2	May, 1861
4370	Carnewas (id., cop.), Mawgan	1 3 0	3 1/2	—	June, 1861
3000	Carm Vivian (tin, cop., lead)	1 19 0	2 1/2	—	Apr. 1861
7000	Carrack Dewa	2 16 0	1	—	Apr. 1861
1066	Carvannall (cop.), Gwennap	21 11 7	3	—	Dec. 1860
1000	Carvay and Buzurgh [L.]	7 10 0	—	—	Fully paid.
20000	Cast Con. (cop. id.) [L. £5 1/4]	1 0 0	9s.	8s. 6d.	Mar. 1859
25000	Casara (lead), Carna [L. £1]	0 8 0	12 1/2	—	Dec. 1860
10000	Castleward, Ireland [L. £1]	0 0 0	12s. 6d.	—	—
2500	Cefn Clifton (lead), Flintshire	1 5 0	1	—	Sept. 1860
4000	Clara Unit (all-ld.) [L. £3]	2 0 0	13 1/2	—	July, 1860
984	Cliff & Wentworth (tin, cop.)	28 0 0	2	—	May, 1861
6000	Clinton and Edgecombe United	1 0 0	1 1/2	—	Oct. 1860
3135	Coad Mawr Pool (lead) [L.]	4 7 0	4	—	June, 1861
2560	Colomendy (lead), near Mold	1 0 0	21s.	—	No call.
5000	Cornubia (tin), Cornwall	15 0 0	1	—	Apr. 1861
10000	Craigdon (id.) [L. £1], Kirkead	10 0 0	3 1/2	—	June, 1859
905	Craze (copper), Camborne	8 0 0	7 1/2	6 1/2	July, 1860
30000	Craven Moor (id.), Yorkshire	0 10 0	4s.	—	No call.
12000	Crelake (cop.), Tavistock	—	3	—	No call.
8000	Crookhaven (cop.) [L. £2 1/4]	1 10 0	1 1/2	—	Mar. 1861
2000	Crowlwm (lead), Llanidloes	1 10 0	3 1/2	—	No call.
8000	Crownroade (cop.), Tavistock	0 11 0	3	—	Nov. 1861
9000	Cuddra (cop., tin), St. Austell	1 16 0	13 1/2	13 1/2	Dec. 1860
2000	Cum Alder (cop., tin), St. Austell	7 10 0	1	—	Dec. 1860
51000	Daed, North Staffordshire [L.]	1 0 0	3s. 14s. 16s.	—	Fully paid
4817	Devon and Courtenay (cop.)	1 9 0	11s.	—	Mar. 1861
5000	Devon Great Wheel Ellen	2 0 0	—	—	Mar. 1861
12000	Dev. New Copper Co. [L. £2]	—	2	—	—
12000	Devon Union (copper) [L.]	0 12 6	3 1/2	—	May, 1861
4568	Devon Wheel Bullier (cop.)	31 11 6	3 1/2	—	Aug. 1861
1000	Duro (tin), Lelant	6 12 0	7 1/2	—	Mar. 1861
2008	Dolcoath United [L. £3]	1 0 0	2 1/2	—	Mar. 1861
5000	Dorset (tin), Cornwall	24 12 0	—	—	June, 1861
8000	Dryghwm (lead), Wales	12 10 0	9 1/2	—	Sept. 1859
244	Eaglebrook (lead), Cardigan	75 0 0	12	—	June, 1861
4096	East Alfred Consols (copper)	3 12 3	33s.	29s. 31s.	May, 1861
3000	E. Beam (tin), St. Aus. [L. £2]	0 10 0	14 1/2	14 1/2	Aug. 1861
6000	E. Bertha Con. (cop.), Tavist.	0 17 0	13 1/2	—	July, 1861
6000	East Budnick and Mount	0 10 0	9s.	—	Jan. 1861
6000	East Carm Brea (cop.) Redruth	3 5 0	7	7 1/2	June, 1861
6000	East Crinnis and South Far	2 7 6	2	—	June, 1861
6000	East Devon Cons. (cop.)	3 15 0	18 1/2	2 3/4	June, 1861
4000	East Fowey (cop.) [L. 50s.]	1 5 0	1 1/2	—	June, 1861
5000	E. Grenville (cop.), Camborne	0 16 6	39s.	39s. 41s.	July, 1861
4000	E. Gunnis Lake & S. Bedf. (cop.)	8 9 6	3 1/2	3 1/2	Mar. 1861
12000	East Mona (cop., &c.) [L. £1]	0 5 0	—	—	May, 1861
8000	East Poberro, St. Agnes	0 5 0	1 1/2	—	May, 1861
4096	E. Providence (tin), Uny Lei.	2 3 5	14 1/2	—	June, 1861
5000	E. Releath (tin, cop.), Wendron	0 1 0	1	—	Aug. 1861
5000	E. Rosewarne (cop., tin), Gwin.	2 10 0	13 1/2	—	May, 1861
1100	East Seton, Cornwall	6 10 0	—	—	June, 1861
255	East Tolgus (copper), Redruth	60 2 0	62	—	June, 1861
5000	E. Trevels (cop.), Gwennap	7 3 10	3 1/2	—	June, 1861
1024	E. Treaskerby (cop.), Redruth	3 10 0	2	—	July, 1861
1190	E. Wheal Agar (cop.), St. Cleer	8 7 0	2	—	July, 1861
6000	E. Wh. Ellen (all-ld.), St. Ives	0 1 0	3	—	July, 1861
4000	E. W. Russell, Tav. [S. £1]	7 4 0	33 1/2	27 3/4 3 1/2	Nov. 1858
5700	Exmouth (all-ld.), Christow	5 14 0	14 1/2	—	July, 1861
6000	Fowey and Far Uni., St. Blazey	0 10 0	13 1/2	—	Nov. 1861
6000	Fardis (cop.), Okeham [L. 30s.]	1 5 0	1 1/2	—	Nov. 1861
6000	Furze Hill W. (cop.), Bock.	0 9 14	14s.	—	June, 1861
114	Garden (tin), Morvah	22 0 0	24	—	June, 1861
1000	Garrad (lead), Flint	4 8 6	1 1/2	—	July, 1861
4000	Gawton (copper), Tavistock	1 12 0	3 1/2	3 1/2	June, 1861
1024	Gelliflowler (id.), Holywell	0 2 6	5s. 6d.	—	June, 1861
6000	Gernick (copper), Crovan	0 10 0	4	—	June, 1861
4892	Goginan (all-ld.) [1900 £124, 2992 £1]	2 10 0	2	1 1/2 2	July, 1861
6144	Gonamena (copper), St. Cleer	2 10 0	2	1 1/2 2	Mar. 1861
6000	Gonon, St. Neot	0 2 6	4s.	—	June, 1861
5000	Great Brigg (copper), St. Austell	1 10 0	1 1/2	—	June, 1861
4096	Great Caradon (cop.)	1 8 0	5 1/2	—	May, 1861
6000	Gr. Crinnis (cop.), St. Austell	2 4 0	13 1/2	1 1 1/2	June, 1861
10000	Great Moelwyn Slate [L. £5]	1 10 0	—	—	Mar. 1861
4000	Gr. N. Tolgus (cop.), Redruth	2 17 6	23 1/2	—	Aug. 1861
10104	Great Onslow Cons., Camelf. [L.]	3 10 9	3 1/2	—	Dec. 1861
4000	Gr. Retallack (all-ld., blende)	1 7 0	21s.	19s. 21s.	June, 1861
47000	Gr. Treguneu [40,000 £2 1/4, 7000 £1 pd.]	—	—	—	—
4000	Great Trevedoce (copper)	0 14 0	13s.	3 1/2 3 1/2	Aug. 1861
3000	Great Treguneu (copper), [L. £5]	4 14 0	3 1/2	3 1/2 3 1/2	July, 1861
3730	Great Wheel Badden [L. £5]	4 14 0	3 1/2	3 1/2 3 1/2	Aug. 1861
6000	Gr. Wh. Bury (cop., tin), Ken.	13 0 0	5 1/2	—	Mar. 1861
12500	Great Wh. Martha (cop.), [L.]	1 0 0	19 1/2	13 1/2 2	Fully paid
10240	Gunnis Lake (Cliffers' Adit.)	0 2 0	3 1/2	—	Mar. 1861
5000	Gurlyn (cop., tin), St. Erth	1 10 0	8s.	—	June, 1861
8634	Gwydyr Park Con., Llanrwst	0 15 3	9s.	—	June, 1861
6400	Harwood (id.), Durham [L. £1]	0 3 6	3 1/2	—	July, 1861
7000	Hawkins (tin, cop.) Calstock	2 17 6	2 1/2	2 3/4	Sept. 1861
6000	Hickbush (id.), Cornwall	0 10 0	2 1/2	—	July, 1861
6000	Huckworthy Bridge (copper)	0 18 0	3 1/2	—	July, 1861
40	Imperial Silver-Lead, Dolgelly	25 0 0	30	—	Mar. 1861
6000	Kewick (lead), Portlincase	5 0 0	1 1/2	—	July, 1861
6000	Lady Bertha (cop.) [S. £.]	12 12 6	3 1/2	15s. 17s.	July, 1861
3000	Lady Eliza (id.), Carm. [L. £3]	3 8 0	3 1/2	—	June, 1861
1019	Leeds & St. Anbyn (tin, cop.)	15 12 3	4	—	Mar. 1861
963	Lelant Cons. (tin), Uny Lelant	32 10 0	2 1/2	—	Mar. 1861
1000	Lianhar (silver-lead) [L.]	6 0 0	—	—	Fully paid
8000	Lynher (tin, cop.) [L.]	10 0 0	13 1/2	—	July, 1861
500	Long Lake (lead), Flint	10 0 0	13	14 16	—
2000	Lower Park Denbighshire [L.]	4 0 0	—	—	—
4968	Maudlin Mines [2484 £8, 2484 £1 pd.]	—	2 1/2	—	—
4540	Merilyn (lead), Flint	3 11 6	3 1/2	3 1/2	July, 1861
22000	Merrifield (lead) [L.]	0 12 0	4s.	—	May, 1861
3400	Michell (lead), Flint	0 10 0	9s.	—	Aug. 1861
1024	Mild Pool (tin, cop.) St. Hilary	15 9 6	1	—	June, 1861
1024	Mild (lead), Flinta [L. £1]	0 37 0	7 1/2	—	Aug. 1861
6111	Molland (cop.) St. Austell	0 2 0	2s.	—	July, 1861
5000	Nance Valley	0 5 0	1	—	Aug. 1861
1024	Nangiles (tin, cop.), Ken.	3 0 0	6	—	Jan. 1861
6000	Nanteo and Penrhif [L. £4]	3 6 0	2 1/2	—	June, 1861
2400	Nant-y-Iago (id.), Merioneth	3 0 0	2 1/2	—	June, 1861
250	Nanty Mines (id.), Montgom.	20 0 0	—	—	Fully paid
6400	Nether Heath (lead), Duffon.	0 18 6	3 1/2	—	Apr. 1861
6400	N. Crow Hill (id.), St. Stephen	1 19 16	14 1/2	—	July, 1861
6000	New United Cons. (tin), St. Austell	1 10 0	13 1/2	1 1/2 1 1/2	Mar. 1861
6000	New Wheal Clifford (copper)	0 6 0	6	—	Mar. 1861
6144	New Wheal Francis, Crowan	0 16 6	2 1/2	—	Mar. 1861
1024	New Wheel Hender, Crowan	2 10 0	3	—	June, 1861
400	New Wh. Seton (cop.), Camb.	13 10 0	46	43 46	May, 1861
2300	New Wh. Vor & E. Wh. Metal	9 0 0	—	—	July, 1861
2048	N. Wh. Vaddon (cop.), Marazion	0 19 6	14 1/2	—	Aug. 1861
6000	Nidderdale (id.), Yorks. [L. £1]	0 15 0	3 1/2	—	Jan. 1861
40	N. Budnick (tin, id.), Perran	10 0 0	40	—	No call.
450	N. Budnick (tin, id.), Perran	10 0 0	40	—	No call.
1024	North Buller (cop.), Redruth	20 17 6	6	—	Aug. 1861
6000	Nor. Clifford (cop.), Gwennap	0 5 0	5 1/2	—	Nov. 1861
20000	North Devon (all-ld.) [L. £1]	0 7 0	7 1/2	—	Apr. 1861
6000	N. Dolcoath (cop.), Camborne	2 4 6	—	—	Aug. 1861
6792	N. Downs and Wh. Rose Uni.	1 18 0	13 1/2	—	Apr. 1861
2500	North Frances (cop.) [S. £.]	18 5 0	4	—	June, 1861
8000	N. Hallenbeagle (tin, cop.)	0 10 0	13 1/2	—	Apr. 1861
2000	North John (tin), St. Austell	1 0 0	10	—	Apr. 1861
2000	North Lacey (tin), Man [3600 £3, 2400 £1 1/4]	—	14 1/2	—	June, 1861
2000	N. Levant (tin, cop.), St. Just	6 16 6	6	—	Aug. 1861
10000	North Minera (lead) [L.]	1 0 0	29s.	27s. 29s.	April, 1861